PUBLIC NOTICE

Holston Army Ammunition Plant has applied to the Tennessee Air Pollution Control Division (TAPCD) for a renewal of their major source operating permit subject to the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations (also frequently referred to as Title V regulations). A major source (Title V) operating permit is required by both the Federal Clean Air Act and the Tennessee Air Pollution Control Regulations.

The applicant is **Holston Army Ammunition Plant** with a site address of 4509 West Stone Drive, Kingsport, TN. They seek to renew their major source operating permit for the manufacturing of explosives.

EPA has agreed to treat this draft Part 70 permit as a proposed Part 70 permit and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA's 45-day review period will cease to be performed concurrently with the public notice period. EPA's 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. Whether EPA's 45-day review period is performed concurrently with the public comment period or after the public comment period has ended, the deadline for citizen's petitions to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended (i.e., sequentially).

The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address:

http://www.epa.gov/caa-permitting/tennessee-proposed-title-v-permits

A copy of the application materials used by the TAPCD and a copy of the draft permit are available for public inspection during normal business hours at the following locations:

Mt. Carmel Library
100 ½ Main Street
Mt. Carmel, TN 37645

and

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

Also, if you require a copy of the draft permit it is available electronically by accessing the TDEC internet site located at:

http://www.tn.gov/environment/topic/ppo-air

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be made within thirty (30) days of the date of this notice and should be addressed to **Ms. Michelle Walker Owenby, Director,** Tennessee Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243. Questions concerning the source(s) may be addressed to Mr. Moe Baghernejad at the same address or by calling (615) 532-0554 or (615) 532-0594. A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to participate in these proceedings or review information maintained at the above-mentioned depositories should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such review. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 2nd Floor, Nashville, Tennessee 37243, 1-866-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

For the Hawkins County "Rogersville Review"-- publish once during the time period of May 11, 2016 through May 18, 2016

Air Pollution Control Date: May 9, 2016

Assigned to – Moe Baghernejad

No alterations to the above are allowed:
Holston Army Ammunition Plant must pay to place this advertisement in the newspaper
Air Pollution Control must be furnished with an affidavit from the newspaper stating that the ad was run and the date of the ad or one complete sheet from the newspaper showing this advertisement, the name of the newspaper and the date of publication. Mail to Moe Baghernejad, Air Pollution Control Division, William R. Snodgrass Tennessee Tower, 15th Floor, 312 Rosa L. Parks Avenue, Nashville, Tennessee 37243.

TITLE V PERMIT RENEWAL STATEMENT

Facility Name:	**Holston Army Ammunition Plant (HSAAP Area B)**
City:	**Kingsport**
County:	**Hawkins**

Date Application Received:	**December 23, 2013**
Date Application Deemed Complete:	**OCT-24-2014**

Emission Source Reference No.:	**37-0028**
Permit No.:	**568188**

INTRODUCTION

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-03-09-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to Holston Army Ammunition Plant and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the compliance status with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

Acronyms

PSD - Prevention of Significant Deterioration
NESHAP - National Emission Standards for Hazardous Air Pollutants

NSPS - New Source Performance Standards
MACT - Maximum Achievable Control Technology
NSR - New Source Review

I. Identification Information

A. Source Description:

Listing and description of emission sources:

(1) Fuel Burning Installation: (6) Coal Fired Boilers and (3) natural gas fired boilers (37-00028-01-09): for steam generation
(2) Open Burning of Explosive Contaminated Waste (37-0028-10).
(3) Refuse Incineration Units A & B (37-0028-11): noncontaminated refuse incineration
(4) RDX Nitration Process (37-0028-12): chemical production of RDX explosive
(5) RDX Nitration Process (37-0028-13): chemical production of RDX explosive
(6) HMX Nitration Process (37-0028-14): chemical production of HMX explosive
(7) RDX and HMX Nitration Process (37-0028-15): chemical production of RDX and HMX explosive
(8) Filtering and Washing of Crude RDX (37-0028-16): purification of RDX
(9) Filtering and Washing of Crude RDX and HMX (37-0028-17): purification of RDX and HMX
(10) RDX Nitration Process (37-0028-18): chemical production of RDX explosive
(11) RDX Nitration Process (37-0028-19): chemical production of RDX explosive
(12) RDX Nitration Process (37-0028-20): chemical production of RDX explosive
(13) RDX Nitration Process (37-0028-21): chemical production of RDX explosive
(14) Recrystallization of RDX (37-0028-22): purification of RDX
(15) Recrystallization of RDX or HMX (37-0028-23): purification of RDX or HMX
(16) Recrystallization of RDX (37-0028-24): purification of RDX
(17) Recrystallization of RDX (37-0028-25): purification of RDX
(18) Recrystallization and Coating of RDX (37-0028-26, -27 and portion of 37-1029-39).: purification of RDX
(19) Filtering and Washing of HMX or RDX (37-0028-28): purification of RDX or HMX
(20) Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (37-0028-43): chemical production nitric acid from ammonia, air and water
(21) Nitric Acid Concentration by Magnesium Nitrate Process (37-0028-44, -45, -46, -47,-48, -63, -64,-65): concentration of 61% nitric acid to 99% nitric acid with magnesium nitrate catalyst.
(22) Lime Storage and Handling (37-0028-49).
(23) Open Burning of Explosive Waste (37-0028-53).
(24) Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (37-0028-56): chemical production nitric acid from ammonia, air and water.
(25) Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (37-0028-57): chemical production nitric acid from ammonia, air and water
(26) Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (37-0028-58): chemical production nitric acid from ammonia, air and water

(27) Ammonium Nitrate/Nitric Acid Solution Process (37-0028-67): reaction of ammonia and nitric acid
(28) Recrystallization of HMX (37-0028-75): purification of HMX
(29) Coating of HMX (37-0028-76): purification in solvent and lacquer coating of HMX for plastic explosives
(30) Filtration and Washing of HMX (37-0028-78): purification of HMX
(31) Recrystallization and Coating of RDX (37-0028-79): purification and coating of RDX for plastic explosives
(32) Recrystallization of RDX (37-0028-80): purification of RDX
(33) Coating of RDX (37-0028-81): purification and lacquer/ vistanex coating of RDX for plastic explosives
(34) Coating of RDX (37-0028-82): purification and lacquer/vistanex coating of RDX for plastic explosives
(35) Recrystallization of RDX (37-0028-83): purification of RDX
(36) Recrystallization of RDX (37-0028-84): purification of RDX
(37) Coating of RDX (37-0028-85): purification in solvent and lacquer/ vistanex coating of RDX for plastic explosives
(38) Recrystallization of HMX (37-0028-86): purification of HMX
(39) Recrystallization of HMX (37-0028-87): purification of HMX
(40) Coating of RDX or HMX (37-0028-88): purification and coating of RDX or HMX
(41) Coating of RDX or HMX (37-0028-89): purification in solvent and lacquer/ plasticizer coating of HMX for plastic explosives
(42) Lacquer Preparation (37-0028-92): mixing of solvent and binder for lacquer coating of RDX and HMX explosives
(43) Fly Ash Storage Bin (37-0028-97): boiler flyash storage and loadout to trucks
(44) Lime Silo @ Building 224 (37-0028-98): lime unloading to wastewater treatment
(45) Sodium Nitrate Recovery Process (~~37-1028-29~~, 37-0028-100): concentration and drying of sodium nitrate solution
(46) Filtering and Washing of Crude RDX (~~37-1028-37~~, 37-0028-101): purification of RDX
(47) Filtering and Washing of Crude RDX (~~37-1028-39~~, 37-0028-102): purification of RDX
(48) Coating of RDX or HMX (~~37-1028-90~~, 37-0028-103): purification in solvent and lacquer coating of RDX to produce PBX plastic explosive
(49) Coal Handling System (~~37-1028-96~~, 37-0028-104): for coal feed to Area B boilers; coal crushing, screening and conveying
(50) Lacquer Preparation (~~37-1028-98~~, 37-0028-105): mixing of solvent and binder for lacquer coating of RDX or HMX explosives
(51) Sodium Nitrate Sludge Drying Process (~~37-1028-99~~, 37-0028-106): double drum dryer
(52) Plasma Arc Cutting Machine (~~37-1029-03~~, 37-0028-107): for cutting of steel plate/shapes
(53) Recrystallization of RDX (~~37-1029-05~~, 37-0028-108): purification and coating of RDX
(54) Coating of RDX (~~37-1029-06~~, 37-0028-109): production of PBX plastic explosive
(55) HMX and RDX Nitration Process (~~37-1029-09~~, 37-0028-110): HMX and RDX production by chemical nitration
(56) Coating of RDX or HMX (~~37-1029-14~~, 37-0028-111): purification in solvents and coating of RDX and HMX to produce PBX plastic explosive
(57) Filtration and Washing of Crude RDX/HMX (37-0028-77): purification of RDX or HMX

(58) Acetic Anhydride Production and Acetic Acid Concentration (~~37-1029-16~~, 37-0028-112)
(59) Natural gas fired only Steam Generating Units (~~37-1029-17~~, 37-0028-113).
(60) G-8 Nitration Process (~~37-1029-20~~, 37-0028-114).
(61) Weak Acetic Acid Recovery Process (~~37-1029-24~~, 37-0028-115)
(62) Tanks 16A and 16B for the Weak Acetic Acid Recovery Process (~~37-1029-25~~, 37-0028-116)

Permitting Activities Since Original Permit Issuance (Previous Permit 547262)

1 Significant modification to sources 37-0028-01-10, to replaces ESP control with fabric filters with sorbent injection systems for boiler MACT.
2. Significant modification to sources 37-0028-45, -46, -47, -48, -63, -64, and -65, to limit the sources to 249 TPY of NO_X for all these sources combined to avoid BART requirements.
3. Minor modification to sources 37-0028-26, -27 and ~~37-1028-39~~, 37-0028-102, to change NO_X emissions from 5 TPY to 15 TPY.
4. Remove sources 61 and 66.
5. Revised Conditions B5, C1, C2, and E2(b).

Permitting Activities Since Previous Permit Issuance 558406

(1) The following Emission Source Referenced Numbers have been changed to the new Emission Source Referenced Numbers as follow:

Previous Emission Source Referenced no.	New Emission Source Referenced no.
37-1028-29	37-0028-100
37-1028-37	37-0028-101
37-1028-39	37-0028-102
37-1028-90	37-0028-103
37-1028-96	37-0028-104
37-1028-98	37-0028-105
37-1028-99	37-0028-106
37-1029-03	37-0028-107
37-1029-05	37-0028-108
37-1029-06	37-0028-109
37-1029-09	37-0028-110
37-1029-14	37-0028-111
37-1029-16	37-0028-112
37-1029-17	37-0028-113
37-1029-20	37-0028-114
37-1029-24	37-0028-115
37-1029-25	37-0028-116

(2) New source ~~37-1029-16~~, 37-0028-112: January 14, 2014, construction permit no 967608P issued for Acetic Anhydride Production and Acetic Acid Concentration
(3) New source (~~37-1029-17~~, 37-0028-113): . January 14, 2014, construction permit no 967609F issued for Natural gas fired only Steam Generating Units
(4) New source ~~37-1029-20~~, 37-0028-114: January 14, 2014, construction permit no 967610P issued for G-8 Nitration Process.

(5) New source ~~37-1029-24~~, 37-0028-115: December 10, 2010, construction permit no 963970P issued for Weak Acetic Acid Recovery Process
(6) New source ~~37-1029-25~~, 37-0028-116: January 14, 2014, construction permit no 967612P issued for Tanks 16A and 16B for the Weak Acetic Acid Recovery Process
(7) New source 37-0028-117, Eight Generates sets, Four Air Compressors, and Two pums
(8) New Source 37-0028-118, Gasoline Storage and Dispensing
(9) Remove sources 37-0028-11,-43, -56, -57, -58 and ~~37-108-99~~, 37-0028-106
(10) Revised Conditions A12, B5, and E2(b)

B. Facility Classification

1. Attainment or Non-Attainment Area Location

Area is designated as an attainment area for all criteria pollutants.

2. Company is located in a Class II area.

C. Regulatory Status

1. PSD/NSR

This facility is an existing major source under PSD.

2. Title V Major Source Status by Pollutant

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?	
		Major Source Status	Non-Major Source Status
PM	y	y	
PM_{10}	y	y	
SO_2	y	y	
VOC	y	y	
NO_X	y	y	
CO	y	y	
Individual HAP	y	y	
Total HAPs	y	y	

3. MACT and NSPS Standards

37-0028-01-04 **(4) Coal Fired Boilers is subject to** 40 CFR 63, Subpart DDDDD

Source ~~37-1029-16~~, 37-0028-112, Acetic Anhydride Production and Acetic Acid Concentration Is subject to 40 CFR 60, Subpart VVa, 40 CFR 60, Subpart NNN, 40 CFR 60, Subpart RRR, and 40 CFR 63, Subpart DDDD

~~Source 37-1029-17~~, 37-0028-113 : Natural gas fired only Steam Generating Units is subject to 40 CFR 60, Subpart Dc, 40 CFR 60, Subpart KKKK, 40 CFR 63, Subpart DDDDD, and 40 CFR 63, Subpart YYYY

~~Source 37-1029-24~~, 37-0028-115: Weak Acetic Acid Recovery Process is subject to 40 CFR 60, Subpart VVa, 40 CFR 60, Subpart NNN.

~~Source 37-1029-25~~, 37-0028-116: Tanks 16A and 16B for the Weak Acetic Acid Recovery Process is subject to 40 CFR 60, Subpart VVa, 40 CFR 60, Subpart Kb.

4. Program Applicability

Are the following programs applicable to the facility?

PSD: yes

NESHAP: yes

NSPS: yes

II. Compliance Information

A. Compliance Status

Is the facility currently in compliance with all applicable requirements? Yes

Industrial boilers, 40 CFR §63 Subpart DDDDD or the Boiler MACT: Compliance date extended to 1-31-2017..

III. Other Requirements

A. Emissions Trading

The facility is not involved in an emission-trading program.

B. Acid Rain Requirements

This facility is not subject to any requirements in Title IV of the Clean Air Act.

C. Prevention of Accidental Releases

This facility is subject to 40 CFR 68 as of June 21, 1999.

THE FOLLOWING AGENCIES WERE NOTIFIED OF THE TITLE V DRAFT PERMIT FOR THIS COMPANY:

1. EPA, Region IV

2. The NC Dept. of Environment and Natural Resources
3. Virginia Department of Environmental Quality
4. Kentucky Division for Air Quality

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243

OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations. The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

Date Issued:

Permit Number: 568188

Date Expires:

Issued To:

Holston Army Ammunition Plant
BAE Systems Ordnance Systems Inc.
(HSAAP Area B Operations)

Installation Address:

4509 West Stone Drive
Kingsport

Installation Description:

Explosives Manufacturing:
Chemical Processing Operations for Preparation of RDX and HMX Explosives;
Source Listing in Table of Contents

Emission Source Reference No.: 37-0028

Renewal Application Due Date:

Primary SIC: 28

Information Relied Upon:

Title V Permit renewal application dated December 16, 2013
Minor Modification Application dated October 24, 2014

(Continued on the next page)

DRAFT

TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS

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Conditions E64-1 through E63-5 apply.
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Conditions E65-1 through E65-6 apply.
61

E66. Emergency Generators (37-0028-117
Conditions E66-1 through E66-28 apply.
62

E67. Gasoline Dispensing Facility (37-0028-118)
Conditions E67-1 through E67-7 apply.
69

END OF PERMIT NUMBER 568188
70

SECTION A

GENERAL PERMIT CONDITIONS

A permit issued under the provisions of paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

A1. **Definitions.** Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulation.

TAPCR 1200-03

A2. **Compliance requirement.** All terms and conditions in a permit issued pursuant to paragraph 1200-03-09-.02(11) including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act.

The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3. **Need to halt or reduce activity.** The need to halt or reduce activity is not a defense for noncompliance. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4. **The permit.** The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5. **Property rights.** The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6. **Submittal of requested information.** The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

A7. **Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

A8. **Fee payment.**

(a) The permittee shall pay an annual major source emission fee based upon the responsible official's choice of actual emissions or allowable emissions. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A major source annual emission fee will not be charged for emissions in excess of the cap (s) or for carbon monoxide.

(b) Major sources who have filed a timely, complete operating permit application in accordance with 1200-03-09-.02(11), shall pay allowable emission based fees until the beginning of the next annual accounting period following receipt of their major source operating permit. At that time, the permittee shall begin paying their annual emission fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees as stated under SECTION E of this permit. Once permitted, altering the existing choice shall be accomplished by a written request of the major source, filed in the office of the Technical Secretary at least one hundred eighty days prior to the expiration or reissuance of the major source operating permit.

(c) Major sources must conform to the following requirements with respect to fee payments:

1. If a major source choosing an allowable based annual emission fee wishes to restructure its allowable emissions for the purposes of lowering its annual emission fees, a mutually agreed upon, more restrictive regulatory requirement may be established to minimize the allowable emissions and thus the annual emission fee. The more restrictive requirement must be specified on the permit, and must include the method used to determine compliance with the limitation. The documentation procedure to be followed by the major source must also be included to insure that the limit is not exceeded. Restructuring the allowable emissions is permissible only in the annual accounting periods of eligibility and only, if the written request for restructuring is filed with the Technical Secretary at least 120 days prior to the beginning of the annual accounting period of eligibility. These periods of eligibility occur upon expiration of the initial major source operating permit, renewal of an expired major source operating permit or reissuance of a major source operating permit.

2. Major sources paying on allowable based emission fees will be billed by the Division no later than April 1 prior to the end of the accounting period. The major source annual emission fee is due July 1 following the end of the accounting period.

3. Major sources choosing an actual based annual emission fee shall file an actual emissions analysis with the Technical Secretary which summarizes the actual emissions of all regulated pollutants at the air contaminant sources of their facility. Based upon the actual emissions analysis, the source shall calculate the fee due and submit the payment and the analysis each July 1st following the end of the annual accounting period.

4. Major sources choosing a mixture of allowable and actual based emission fees shall file an actual emissions and allowable emissions analysis with the Technical Secretary which summarizes the actual and allowable emissions of all regulated pollutants at the air contaminant sources of their facility. Based upon the analysis, the source shall calculate the fee due and submit the payment and the analysis each July 1st following the end of the annual accounting period.

The mixed based fee shall be calculated utilizing the 4,000 ton cap specified in subparagraph 1200-03-26-.02(2)(i). In determining the tonnages to be applied toward the regulated pollutant 4,000 ton cap in a mixed based fee,

the source shall first calculate the actual emission based fees for a regulated pollutant and apply that tonnage toward the regulated pollutant's cap. The remaining tonnage available in the 4,000 ton category of a regulated pollutant shall be subject to allowable emission based fee calculations for the sources that were not included in the actual emission based fee calculations. Once the 4,000 ton cap has been reached for a regulated pollutant, no additional fee shall be required.

5. Major sources choosing to pay their major source annual emission fee based on actual based emissions or a mixture of allowable and actual based emissions may request an extension of time to file their emissions analysis with the Technical Secretary. The extension may be granted by the Technical Secretary up to ninety (90) days. The request for extension must be postmarked no later than July 1 or the request for extension shall be denied. The request for extension to file must state the reason and give an adequate explanation. An estimated annual emission fee payment of no less than eighty percent (80%) of the fee due July 1 must accompany the request for extension to avoid penalties and interest on the underpayment of the annual emission fee. A remaining balance due must accompany the emission analysis. If there has been an overpayment, a refund may be requested in writing to the Division or be applied as a credit toward next year's major source annual emission fee. The request for extension of time is not available to major sources choosing to pay their major source annual emission fee based on allowable emissions.

6. Newly constructed major sources or minor existing sources modifying their operations such that they become a major source in the midst of the standard July 1st to June 30th annual accounting period, shall pay allowable based annual emission fees for the fractional remainder of the annual accounting period commencing upon their start-up. At the beginning of the next annual accounting period, the "responsible official" of the source may choose to pay annual emission fees based on actual or allowable emissions or a mixture of the two as provided for in this rule 1200-03-26-.02.

(d) Where more than one (1) allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.

1. Sources that are subject to federally promulgated hazardous air pollutant standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31 will place such regulated emissions in the specific hazardous air pollutant under regulation. If the pollutant is also in the family of volatile organic compounds or the family of particulates, the pollutant shall not be placed in that respective family category.

2. A miscellaneous category of hazardous air pollutants shall be used for hazardous air pollutants listed at part 1200-03-26-.02(2)(i)12 that do not have an allowable emission standard. A pollutant placed in this category shall not be subject to being placed in any other category such as volatile organic compounds or particulates.

3. Each individual hazardous air pollutant and the miscellaneous category of hazardous air pollutants is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

4. Major sources that wish to pay annual emission fees for PM_{10} on an allowable emission basis may do so if they have a specific PM_{10} allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM_{10} emission basis, it may do so if the PM_{10} actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM_{10} emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM_{10} emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) shall also apply to PM_{10} emissions.

TAPCR 1200-03-26-.02 (3) and (9) and 1200-03-09-.02(11)(e)1(vii)

A9. **Permit revision not required.** A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

A10. **Inspection and entry.** Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or his authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

(a) Enter upon, at reasonable times, the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) As authorized by the Clean Air Act and Chapter 1200-03-10 of TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3.(ii)

A11. **Permit shield.**

(a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:

1. Such applicable requirements are included and are specifically identified in the permit; or

2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

(b) Nothing in this permit shall alter or affect the following:

1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;

2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or

4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.

(c) Permit shield is granted to the permittee.

TAPCR 1200-03-09-.02(11)(e)6

A12. **Permit renewal and expiration.**

a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days, prior to the expiration of this permit . Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.

(b) Provided that the permittee submits a timely and complete application for permit renewal the source will not be considered in violation of paragraph 1200-03-09-.02(11) until the Technical Secretary takes final action on the permit application, except as otherwise noted in paragraph 1200-03-09-.02(11).

(c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)3 and 2, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13. Reopening for cause.

(a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:

1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the permit expiration date of this permit, unless the original has been extended pursuant to 1200-03-09-.02(11)(a)2.

2. Additional requirements become applicable to an affected source under the acid rain program.

3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.

(d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, he is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he agrees or disagrees with the Administrator's findings. If he agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:

1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90 day time period.

2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.

3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13 (b) and Condition A13 (c).

4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), he shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how he should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical

Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7.

A14. **Permit transferences.** An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:
(a) Transfer of ownership permit application is filed consistent with the provisions of 1200-03-09-.03(6), and
(b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

A15. **Air pollution alert.** When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR 1200-03-09-.03(1) and TAPCR 1200-03-15-.03.

A16. **Construction permit required.** Except as exempted in TAPCR 1200-03-09-.04, or excluded in subparagraph TAPCR 1200-03-02-.01(1)(aa) or subparagraph TAPCR 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

A17. **Notification of changes.** The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.
(a) change in air pollution control equipment
(b) change in stack height or diameter
(c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

A18. **Schedule of compliance.** The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3 and 40 CFR Part 70.5(c)

A19. **Title VI.**
(a) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.
2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

(b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
(c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program(SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

A20. **112 (r).** The permittee shall comply with the requirement to submit to the Administrator or designated State Agency a risk management plan, including a registration that reflects all covered processes, by June 21, 1999, if the permittee's facility is required pursuant to 40 CFR, 68, to submit such a plan.

SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1. **Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

(a) Where applicable, records of required monitoring information include the following:

1. The date, place as defined in the permit, and time of sampling or measurements;
2. The date(s) analyses were performed;
3. The company or entity that performed the analysis;
4. The analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions as existing at the time of sampling or measurement.

(b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B2. **Retention of monitoring data.** The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II

B3. **Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B4. **Certification.** Except for reports required under "State Only" requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

B5. **Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an *excursion or **exceedance as defined below occurred; and

(d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

B6. **Submission of compliance certification.** The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	US EPA Region IV Air and EPCRA Enforcement Branch 61 Forsyth Street, SW Atlanta, Georgia 30303

TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

B7. **Emergency provisions.** An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology based emission limitation due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by

improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.

2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.

3. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

4. The permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in rule 1200-03-20-.03. For the purposes of this condition, "emergency" shall be substituted for "malfunction(s)" in rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in Division 1200-03 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8. Excess emissions reporting.

(a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than

twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:

1. Stack or emission point involved

2. Time malfunction, startup, or shutdown began and/or when first noticed

3. Type of malfunction and/or reason for shutdown

4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation

5. The company employee making entry on the log must sign, date, and indicate the time of each log entry

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

B9. **Malfunctions, startups and shutdowns - reasonable measures required.** The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60(Standards of performance for new stationary sources), 61(National emission standards for hazardous air pollutants) and 63(National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

B10. Reserved.

B11. **Report required upon the issuance of a notice of violation for excess emissions.** The permittee must submit within twenty (20) days after receipt of the notice of violation, the data shown below to assist the Technical Secretary in deciding whether to excuse or validate the violation. If this data has previously been available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same twenty (20) day time period. The minimum data requirements are:

(a) The identity of the stack and/or other emission point where the excess emission(s) occurred;

(b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

(c) The time and duration of the emissions;

(d) The nature and cause of such emissions;

(e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;

(f) The steps taken to limit the excess emissions during the occurrence reported, and

(g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the twenty (20) day period specified shall preclude the admissibility of the data for consideration of excusal for malfunctions.

TAPCR 1200-03-20-.06(2), (3) and (4)

SECTION C

PERMIT CHANGES

C1. **Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:

(a) The change cannot be subject to a requirement of Title IV of the Federal Act or Chapter 1200-03-30.

(b) The change cannot be a modification under any provision of Title I of the federal Act or Division 1200-03.

(c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.

(d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in Rule 1200-03-09-.04.

(e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.

(f) The change shall not qualify for a permit shield under the provisions of part 1200-03-09-.02(11)(e)6.

(g) The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4 (ii)

C2. **Section 502(b)(10) changes.**

(a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7 day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.

(b) The written notification must be signed by a facility Title V responsible official and include the following:

1. a brief description of the change within the permitted facility;

2. the date on which the change will occur;

3. a declaration and quantification of any change in emissions;

4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and

5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.

(c) The permit shield provisions of TAPCR 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4 (i)

C3. **Administrative amendment.**

(a) Administrative permit amendments to this permit shall be in accordance with 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

(b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR 1200-03-09-.02(11)(e), TAPCR 1200-03-09-.02(11)(f) and TAPCR 1200-03-09-.02(11)(g) for significant permit modifications.
(c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

C4. Minor permit modifications.
(a) The permittee may submit an application for a minor permit modification in accordance with TAPCR 1200-03-09-.02(11)(f)5(ii).
(b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.
(c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.
(d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

C5. Significant permit modifications.
(a) The permittee may submit an application for a significant modification in accordance with TAPCR 1200-03-09-.02(11)(f)5(iv).
(b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6. New construction or modifications.
Future construction at this facility that is subject to the provisions of TAPCR 1200-03-09-.01 shall be governed by the following:
(a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.
(b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR 1200-03-09-.02(11)(f)5(iv).
(c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d) 1(i)(V)

SECTION D
GENERAL APPLICABLE REQUIREMENTS

D1. **Visible emissions.** With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1)hour or more than twenty (20) minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of twenty (20) percent (6-minute average) except for one six minute period per one (1) hour of not more than forty (40) percent opacity. Sources constructed or modified after July 7, 1992 shall utilize 6-minute averaging.

Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or his representative upon his request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.02(1)

D2. **General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

D3. **Non-process emission standards.** The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR 1200-03-06.

D4. **General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

D5. **Particulate emissions from process emission sources.** The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR 1200-03-07.

D6. **Sulfur dioxide emission standards.** The permittee shall not cause, suffer, allow, or permit Sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

D7. **Fugitive Dust.**

(a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable

precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, material stock piles, and other surfaces which can create airborne dusts;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

(b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or twenty (20) minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in Chapter 1200-03-20.

TAPCR 1200-03-08

D8. **Open burning.** The permittee shall comply with the TAPCR 1200-03-04 for all open burning activities at the facility.

TAPCR 1200-03-04

D9. **Asbestos.** Where applicable, the permittee shall comply with the requirements of 1200-03-11-.02(2)(d) when conducting any renovation or demolition activities at the facility.

TAPCR 1200-03-11-.02(2)(d) and 40 CFR, Part 61

D10. **Annual certification of compliance.** The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are not subject to source-specific applicable requirements contained in State of Tennessee and U.S. EPA regulations. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)1 and compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit compliance certification for these conditions annually.

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

37-0028	**Facility Description:**	Holston Army Ammunition Plant (HSAAP) is a Federal Government owned, contractor operated, facility that primarily manufactures RDX and HMX explosives for national defense purposes. The Area A operations in Sullivan County (82-0018) produce acetic anhydride and concentrated acetic acid for use in explosives production at the HSAAP Area B located in Hawkins County (37-0028). The Area B explosives manufacturing operations are supported by steam generating operations at steam plants equipped with coal fired and natural gas fired boilers.

Conditions E1 through E3 apply to all sources in Section E of this permit unless otherwise noted.

E1. Fee payment: actual emissions basis.

Note: for fees facility source nos. 37-0028 (Area B), ~~37-1028, 37-1029~~, and 82-0018 (Area A) are combined.

FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 37-0028, ~~37-1028, 37-1029~~, and 82-0018

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	N/A	AEAR	Includes all fee emissions.
PM_{10}	N/A	N/A	
SO_2	N/A	AEAR	Includes all fee emissions.
VOC	N/A	AEAR	Includes all fee emissions.
NO_x	N/A	AEAR	Includes all fee emissions.
CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAP WITHOUT A STANDARD)*			
VOC FAMILY GROUP	N/A	AEAR	.
NON-VOC GASEOUS GROUP	N/A	AEAR	
PM FAMILY GROUP	N/A	AEAR	
CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAP WITH A STANDARD)**			
VOC FAMILY GROUP: Miscellaneous	N/A	AEAR	MACT (40 CFR Part 63 Subpart FFFF). Fee emissions are included in VOC above.
NON-VOC GASEOUS GROUP: Gaseous metals and acids - Mercury and Hydrogen Chloride as surrogates.	N/A	AEAR	MACT (40 CFR Part 63 Subpart DDDDD). Fee emissions are not included above.
PM FAMILY GROUP: Particulate matter and mercury as surrogates.	N/A	AEAR	MACT (40 CFR Part 63 Subpart DDDDD). Fee emissions are included in PM above.
CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***			

EACH NSPS POLLUTANT NOT LISTED ABOVE	**N/A**	**N/A**	

1-1. For emission fee purposes, annual emissions for the accounting period from July 1 to June 30 for each emission year shall be maintained in the emission calculation records. These records must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. These records must be retained for a period of not less than five (5) years. The procedures for quantifying actual emission rates for the sources contained in the permit shall be specified in a table submitted with the fee calculations for the first submission

OTES

AAP The **Annual Accounting Period** (**AAP**) is a twelve (12) consecutive month period that **begins each July 1st and ends June 30th of the following year.** The **present Annual Accounting Period began July 1, 2015 and ends June 30, 2016.** The **next Annual Accounting Period begins July 1, 2016 and ends June 30, 2017.**

N/A **N/A** indicates that no emissions are specified for fee computation.

AEAR **AEAR** indicates that an **A**ctual **E**missions **A**nalysis is **R**equired to determine the actual emissions of:

(1) **each regulated pollutant** (Particulate matter, SO_2, VOC, NOx, and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),

(2) **each pollutant group** (VOC Family, Non-VOC Gaseous, and Particulate Family), and

(3) the Miscellaneous HAP **Category** under consideration during the **Annual Accounting Period.**

***** **Category Of Miscellaneous HAP (HAP Without A Standard):** This category is made-up of hazardous air pollutants that do not have a federal or state standard. Each HAP is classified into one of three groups, the **VOC Family** group, **the Non-VOC Gaseous** group, or the **Particulate (PM) Family** group. **For fee computation**, the **Miscellaneous HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

****** **Category Of Specific HAP (HAP With A Standard):** This category is made-up of hazardous air pollutants (HAP) that are subject to Federally promulgated Hazardous Air Pollutant Standards that can be imposed under Chapter 1200-3-11 or Chapter 1200-03-31. Each individual hazardous air pollutant is classified into one of three groups, the **VOC Family** group, **the Non-VOC Gaseous** group, or the **Particulate (PM) Family** group. **For fee computation**, each individual hazardous air pollutant of the **Specific HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(I).

******* **Category Of NSPS Pollutants Not Listed Above:** This category is made-up of each **N**ew **S**ource **P**erformance **S**tandard (**NSPS**) pollutant whose emissions are not included in the **PM, SO_2, VOC** or **NO_x** emissions from each source in this permit. **For fee computation**, each **NSPS pollutant not listed above** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

END NOTES

The permittee shall:

(1) Pay major source annual **actual based emission fees**, as requested by the responsible official for each **annual accounting period** (AAP) by July 1 of each year, beginning July 1, **2016** of the **current annual accounting period.**

(2) Prepare an **actual emissions analysis** beginning July 1, **2016** in accordance with the above **Fee Emissions Summary Table** for each AAP (July 1 of each year through June 30 of the

following year). The **actual emissions analysis** shall include:

(a) the completed **Fee Emissions Summary Table,**

(b) each **AEAR** required by the above **Fee Emissions Summary Table, and**

(c) the records required by E4-1, E4-2, E4-5, E4-6, E4-7, E4-8, E4-9, E4-10, E4-11, E4-12, E4-13, E4-14, E4-15, E4-16, E5-1, E5-4, E16-1, E16-2, E18-1, E19-1, E21-2, E21-3, E21-4, E24-1, E24-2, E24-3, E26-1, E26-2, E26-4, E34-1, E35-1, E37-1, E40-1, E45-1, E47-2, E49-1, E50-1, E55-3, E58-2, E58-3, E59-2, E61-1, E62-1, E62-2, E62-3, and E63-1 of this permit. These records shall be used to complete the **AEARs** required by the above **Fee Emissions Summary Table.**

(3) Submit the **actual emissions analysis** at the time the fees are paid in full.

(4) Calculate the fee due based upon the **actual emissions analysis,** and submit the payment on July 1st following the end of the **annual accounting period.** If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Major sources may request an extension of time to file their emissions analysis with the Technical Secretary as specified in Condition A8(c)5 of this permit. Emissions for regulated pollutants shall not be double counted as specified in Condition A8(d) of this permit.

The Tennessee Air Pollution Control Division will bill the permittee no later than April 1 prior to the end of each **annual accounting period.** The annual emission fee is due July 1 following the end of each **annual accounting period.** If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8), except as provided by 1200-03-26-.02(9)(g). Emissions for regulated pollutants shall not be double counted as specified in Condition A8(d) of this permit.

Payment of the fee due and the actual emissions analysis shall be submitted to The Technical Secretary at these addresses.

Payment for Fee to		**Actual Emissions Analysis to**
The Tennessee Department of Environment and Conservation Division of Fiscal Services Consolidated Fee Section – APC William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 10th Floor Nashville, Tennessee 37243	and	The Tennessee Department of Environment and Conservation Division of Air Pollution Control East Tennessee Permit Program William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor Nashville, Tennessee 37243

TAPCR 1200-03-26-.02 (3) and (9), and 1200-03-09-.02(11)(e)1(vii)

E2. Reporting requirements.

(a) **Semiannual reports** In order to maintain the same reporting schedule as established in the initial Title V permit, the first report for this renewal shall cover the following permits and time periods:

Permit	Report period begins	Report period ends
558406 (existing)	January 1, 2016	Day before issuance date of permit 568188
568188 (renewal)	Issuance date of permit 568188	June 30, 2016

The report covering the full 6 month period shall be submitted within 60 days after June 30, 2016. Subsequent reports revert fully to permit #568188 and shall be submitted within 60 days after the end of each 6-month period following the first report. Semiannual periods continue to cover the periods January through June and July through December of every year.

Semiannual reports of this facility (**37-0028**) shall include:

(1) Any monitoring and recordkeeping required by Conditions E4-1, E4-2, E4-5, E4-6, E4-7, E4-8, E4-9, E4-10, E4-11, E4-12, E4-13, E4-14, E4-15, E4-16, E5-1, E5-4, E16-1, E16-2, E18-1, E19-1, E21-2, E21-3, E21-4, E24-1, E24-2, E24-3, E26-1, E26-2, E26-4, E34-1, E35-1, E37-1, E40-1, E45-1, E47-2, E49-1, E50-1, E55-3, E58-2, E58-3, E59-2, E61-1, E62-1, E62-2, E62-3, and E63-1 of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) The visible emission evaluation readings from Conditions E4-3, E4-17, E21-1, E24-5, E46-1, E47-3, E55-4, and E58-1 of this permit if required by the opacity matrix. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(3) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**.

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(b) of this permit.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

(b) **Annual compliance certification** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(1) The identification of each term or condition of the permit that is the basis of the certification;

(2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(3) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in E2(b)2 above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an *excursion or **exceedance as defined below occurred; and

(4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

In order to maintain the same reporting schedule established in the initial Title V permit, the first certification for this renewal shall cover the following permits and time periods:

Permit	Certification period begins	Certification period ends
558406 (existing)	January 1, 2016	Day before issuance date of permit 568188
568188 (renewal)	Issuance date of permit 568188	December 31, 2016

The certification covering the full 12 month period shall be submitted within 60 days (due date: March 1, 2017) after December 31, 2016. Subsequent certifications revert fully to permit #568188 and shall be submitted within 60 days after the end of each 12-month period following the first certification.

These certifications shall be submitted to: **TN APCD** and **EPA**

The Tennessee Department of Environment and Conservation
Johnson City Environmental Field Office
Division of Air Pollution Control
2305 Silverdale Road
Johnson City, TN 37601

and

Air and EPCRA Enforcement Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, GA 30303

As an alternative to submittal of paper copies of the Title V Semiannual Reports, and Title V Annual Compliance certifications by mail or commercial carrier service, the permittee may elect to submit these reports electronically in Adobe Portable Document Format (PDF) to the following e-mail address:
apc.jcefo@tn.gov

The electronically-submitted report must comply with the specified deadlines as required for a paper copy submittal. Also, the electronic report submittal must include a scanned copy of the signature of the responsible official certifying the report. A color copy of the document with blue ink signatures is preferred, but a black-and-white submittal is acceptable. The Air Pollution Control e-mail address will send an automatic reply to verify that the electronic submittal was received. If an automatic reply is not received, you may wish to re-send or confirm that the e-mail submittal was received by contacting the Division of Air Pollution Control at (865) 594-6035.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

(c) **NESHAP and NSPS Reporting Requirements** In order to maintain the same reporting schedule as established in the initial Title V permit, the first report for this renewal shall cover the following permits and time periods:

Permit	Report period begins	Report period ends
558406 (existing)	January 1, 2016	Day before issuance date of permit 568188

568188 (renewal)	Issuance date of permit 568188	June 30, 2016

The report covering the full 6 month period shall be submitted within 60 days after June 30, 2016. Subsequent reports revert fully to permit #568188 and shall be submitted within 60 days after the end of each 6-month period following the first report. Semiannual periods continue to cover the periods January through June and July through December of every year.
These certifications shall be submitted to:

The Technical Secretary
Division of Air Pollution Control
East Tennessee Permit Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243

As an alternative to submittal of paper copies of the NESHAP and NSPS Reports by mail or commercial carrier service, the permittee may elect to submit these reports electronically in Adobe Portable Document Format (PDF) to the following e-mail address:
Air.Pollution.Control@tn.gov

The electronically-submitted report must comply with the specified deadlines as required for a paper copy submittal. Also, the electronic report submittal must include a scanned copy of the signature of the responsible official certifying the report. A color copy of the document with blue ink signatures is preferred, but a black-and-white submittal is acceptable. The Air Pollution Control e-mail address will send an automatic reply to verify that the electronic submittal was received. If an automatic reply is not received, you may wish to re-send or confirm that the e-mail submittal was received by contacting the Division of Air Pollution Control at (615) 532-0554.

TAPCR 1200-03-09-.03(8); 40 CFR §60.757(f)

(d) **112(r) Certification** In addition, the facility shall submit to the Technical Secretary by January 31 of each year the compliance certification required by TAPCR 1200-03-32-.03(3) (adherence to the submitted accidental release plan for facilities subject to Section 112(r) of the federal Clean Air Act).

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(c) of this permit.

(e) **Retention of Records** All records required by any condition in Section E of this permit must be retained for a period of not less than five years. Additionally, these records shall be kept available for inspection by the Technical Secretary or representative.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

E3. **Identification of Responsible Official, Technical Contact, and Billing Contact of the permitted facility:**

a) The application that was utilized in the preparation of this permit is dated December 16, 2013, and signed by Mr. Robert E. Winstead, Director of Environmental, Health, Safety and Security (EHSS), who was the Responsible Official of the permitted facility. If this person terminates employment or is assigned different duties and is no longer a Responsible Official for this facility as defined in part 1200-03-09-.02(11)(b)21 of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and

conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.
b) The application that was utilized in the preparation of this permit is dated December 16, 2013, and identifies James Ogle, Environmental Affairs Specialist as the Principal Technical Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Principal Technical Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.
c) The application that was utilized in the preparation of this permit is dated December 16, 2013, and identifies Jerry Andrieszyn, Financial Analyst as the Billing Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Billing Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.
TAPCR 1200-03-09-.02(6)

E3-1. Emissions control equipment shall be operating when the sources are operating, except in accordance with TAPCR 1200-03-20 (see condition B8).

E3-2. Recordkeeping: Data Entry Requirements

a) For monthly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than thirty (30) days from the end of the month for which the data is required.
b) For weekly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than seven (7) days from the end of the week for which the data is required.
c) For daily recordkeeping, all data, including the results of all calculations, must be entered into the log no later than seven (7) days from the end of the day for which the data is required.

The permittee shall retain this record at the source location for a period of not less than five (5) years and keep this record available for inspection by the Technical Secretary or his representative. TAPCR 1200-03-09-.02(11)(e)1.(iii)

E3-3. Visible emissions reading for the following sources are not required for the reason outlined in the tables;

Sources not Requiring a Visible Emission Reading per the Opacity Matrix

Source Number	Source Description	Reason no Visible Opacity Readings are required according to the Division's Opacity Matrix
37-0028-12	**RDX Nitration Process (PES B-D1-1)** Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; (2) Scrubbers for Control	Allowable Emission < 10 TPY for each pollutant
37-0028-13	**RDX Nitration Process (PES B-D3-1)** Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; (2) Scrubbers for Control	Allowable Emission < 10 TPY for each pollutant
37-0028-14	**HMX Nitration Process (PES B-D6-1)** Nitration, Aging, & Simmering Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, (2) Packed Column Scrubbers for Control	Allowable Emission < 10 TPY for each pollutant

37-0028-15	**RDX and HMX Nitration Process (PES B-D7-1)** Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; Scrubber for Control	Allowable Emission < 10 TPY for each pollutant
37-0028-17	**Filtering and Washing of Crude RDX and HMX (PES B-E3-1)** Jet Venturi Fume Scrubber Control	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
37-0028-18	**RDX Nitration Process (PES B-D2-1)** Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor, Acetic Acid/RDX Slurry; Scrubber Control	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
37-0028-19	**RDX Nitration Process (PES B-D8-1)** Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; Scrubber for Control	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
37-0028-20	**RDX Nitration Process (PES B-D9-1)** Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; Scrubber for Control	Allowable Emission < 10 TPY for each pollutant
37-0028-21	**RDX and HMX Continuous Nitration Process (PES B-D10-1)** Simmering and Aging Process, Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid Hexamine, Acetic Anhydride, Water, Dilution Liquor, Scrubber Control	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
37-0028-22	**Recrystallization of RDX (PES B-G2-1)** (5) Solvent Recovery Condensers	Allowable Emission < 10 TPY for each pollutant
37-0028-23	**Recrystallization of RDX or HMX (PES B-G7-1)** Condenser Control; (4) Primary Condensers & Vent Condenser for Solvent Recovery **PSD-LAER**	Allowable Emission < 10 TPY for each pollutant
37-0028-24	**Recrystallization of RDX (PES B-G8-1)** Vapor Recovery on Condenser Vent A; Primary Condenser & Vent Condenser **LAER-PSD**	Allowable Emission < 10 TPY for each pollutant
37-0028-25	**Recrystallization of RDX (PES B-G9-1)** (4) Primary Condensers & Vent Condenser for Solvent Recovery by Distillation; Condenser Vent	Allowable Emission < 10 TPY for each pollutant
37-0028-28	**Filtering and Washing of HMX or RDX (PES B-E4-1)** Packed Bed Scrubber Control Acetic Acid Recovery	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
37-0028-49	**Lime Storage and Handling with Baghouse Control (PES B-235-1)**	Allowable Emission < 10 TPY for each pollutant
37-0028-67	**Ammonium Nitrate/Nitric Acid Solution Manufacturing (PES B-330-1)** Ammonia and Nitric Acid Reaction; Scrubber Control	Allowable Emission < 10 TPY for each pollutant
37-0028-75	**Recrystallization of HMX (PES B-G5-1)** (5) Solvent Recovery Condensers	Allowable Emission < 10 TPY for each pollutant
37-0028-76	**Coating of HMX (PES B-G5-2)** HMX recrystallization in Methyl Ethyl Ketone, n-Octane, Ethyl Acetate, Butyl Acetate, Isobutyl Acetate, Butyl Alcohol, Ethyl Alcohol, or Isopropyl Alcohol; Solvent Recovery	Allowable Emission < 10 TPY for each pollutant
37-0028-78	**Filtration and Washing of HMX (PES B-E6-1)** Acetic Acid Recovery Jet Venturi Scrubber Control	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
37-0028-79	**Recrystallization and Coating of RDX (PES B-G1-1)** (4) Primary Condensers and Vent Condenser for Solvent Recovery	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
37-0028-80	**Recrystallization of RDX (PES B-G3-1)** Dissolution, Distillation, and Condensation Processes 2 Primary Condensers and Vent Condenser for Solvent Recovery	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants

37-0028-81	**Coating of RDX (PES G-3-2)** RDX coating with lacquer / solvent mixture Primary Condenser and Vent Condenser for Solvent Recovery	Allowable Emission < 10 TPY for each pollutant
37-0028-82	**Coating of RDX (PES B-G3-3)** RDX Coating with lacquers containing Methyl Ethyl Ketone, and Distillation of Water Saturated with Cyclohexanone Condenser for Recovery of Solvent	Allowable Emission < 10 TPY for each pollutant
37-0028-83	**Recrystallization of RDX (PES B-G4-1)** (4) Primary Condensers and Vent Condenser for Solvent Recovery	Allowable Emission < 10 TPY for each pollutant
37-0028-84	**Recrystallization of RDX (PES B-G4-2)** (2) Condensers for Solvent Recovery	Allowable Emission < 10 TPY for each pollutant
37-0028-85	**Coating of RDX (PES B-G4-3)** RDX coating with various lacquers containing n-Octane and Distillation of Cyclohexanone Saturated Water Condenser for Solvent Recovery	Allowable Emission < 10 TPY for each pollutant
37-0028-86	**Recrystallization of HMX (PES B-G6-1)** (5) Condensers for Solvent Recovery	Allowable Emission < 10 TPY for each pollutant
37-0028-87	**HMX Recrystallization (PES B-G6-2)** Condenser for Solvent Recovery	Allowable Emission < 10 TPY for each pollutant
37-0028-88	**Coating of RDX or HMX (PES B-G6-3)** Condenser for Solvent Recovery	Allowable Emission < 10 TPY for each pollutant
37-0028-89	**Coating of RDX or HMX (PES B-G6-4)** Coating of HMX or RDX with Various Solvent-based Lacquers/ Nitroplasticizer Solvent Recovery Condenser	Allowable Emission < 10 TPY for each pollutant
37-0028-92	**Lacquer Preparation (PES B-150-1)** Solvent and Binder Mixing; Vents A, B, C, D	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
~~37-1028-37~~ 37-0028-101	**Filtering and Washing of Crude RDX (PES B-E8-1)** Packed Scrubber Control	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
~~37-1028-39~~, 37-0028-102	**Filtering and Washing of Crude RDX (PES B-E10-1)** (2) Packed Scrubbers for Control	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
~~37-1028-90~~ 37-0028-103	**Coating of RDX or HMX (PES B-G5-3)** Solvent Recovery Condenser	Allowable Emission < 10 TPY for each pollutant
~~37-1028-98~~ 37-0028-105	**(4) Lacquer Pots for Lacquer Preparation (PES B-150-4)** Mixing of Solvent and Binder; Loading of Lacquer to Lacquer Wagons	Allowable Emission < 10 TPY for each pollutant
~~37-1029-05~~ 37-0028-108	**Recrystallization of RDX (PES B-G8-2)** Solvent Recovery Condensers LAER-PSD	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
~~37-1029-06~~ 37-0028-109	**Coating of RDX (PES B-G8-3)** Process Inputs: RDX, Solvents, Vistanex, Adipate, Oil Solvent Recovery Condensers **LAER-PSD**	Allowable Emission < 10 TPY for each pollutant
~~37-1029-14~~ 37-0028-111	**Coating of RDX or HMX (PES B-G7-2)** Process Inputs: RDX/HMX, Solvents, and Lacquer Mixtures Solvent Recovery Condenser	Allowable Emission < 10 TPY for each pollutant
37-0028-77	**Filtration and Washing of Crude RDX/ HMX (PES E-5-1)** Acetic Acid Recovery Jet Venturi Scrubber Control	Allowable Emission < 10 TPY for each pollutant

~~37-1029-17~~ 37-0028-113	**Natural gas fired only Steam Generating Units** Four low NOx micro boilers rated at 11.54 MMBtu/hr each and combined heat and power (CHP) cogeneration turbine rated at 87 MMBtu/hr in line with a heat recovery steam generator (HRSG) with a 46 MMBtu/hr duct burner.	Natural Gas or No. 2 Oil-fired Combustion Source?
~~37-1029-24~~ 37-0028-115	**Weak Acetic Acid Recovery Process** Two (2) evaporators, a stripping column, and a concentrator used to remove ammonium nitrate and other impurities from weak acetic acid	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants
~~37-1029-25~~ 37-0028-116	**Tanks 16A and 16B for the Weak Acetic Acid Recovery Process** Tanks with wet scrubber control	Allowable Emission for each pollutant > 10 TPY from Colorless Pollutants

E3-4. All applicable process sources at Holston Army Ammunition Plant not already subject to the 40 CFR 63 Subpart DDDDD or 40 CFR 63 Subparts F, G, and H NESHAP rules that process, use, or generate hazardous air pollutants are subject and must comply with the requirements of 40 CFR 63 Subpart FFFF.

Each MCPU (Miscellaneous Organic Chemical Manufacturing Process) is evaluated against the requirements of 40 CFR 63 Subpart FFFF. The requirements are documented and maintained on file at the facility and are available for inspection. Notification of new MCPUs with summaries of their requirements and summaries of records are included in the semiannual compliance report for each MCPU that operated during the reporting period as noted in Attachment 23. The requirements for each MCPU will vary.

E3-5. This facility shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards. TAPCR 1200-03-09-.03(8).

37-0028-01-04 Source Description: (4) Coal Fired Boilers (PES B-200)

These boilers consist of four (4) Babcock & Wilcox Company spreader stoker type boilers (Three (3) at a nominal capacity of 191.4 mmBtu/hr with Fabric Filter control devices with Sorbent Injectors (sources 37-0028-02-04) and one (1) with a nominal capacity of 185 million Btu/hour with Electrostatic Precipitator and a high efficiency cyclone for Emissions Control (source 37-0028-01). Each of the 191.4 million Btu/hour boilers (sources 37-0028-02-04) have two 40 million Btu/hour natural gas burners). Each boiler with natural gas burners is limited to a 191.4 million Btu/hour either burning coal or coal and natural gas combined. The normal fuels for sources 37-0028-02-04 are coal and natural gas and coal for source 37-0028-01. In addition, limited amounts (less than 5 percent of coal consumption) of oily rags, clean wood, and secure paper documents may be burned in the four (4) Babcock & Wilcox boilers.

Total source maximum operated heat input capacity of 567.8 million Btu/hour.

E4. Conditions E4-1 through E4-18 apply to source 37-0028-01-04

E4-1. Sulfur dioxide (SO_2) emitted from this source shall not exceed 4.0 pounds per million Btu, one hour average.

TAPCR 1200-03-14-.02(1)(a)

Compliance Method: Compliance with the SO_2 emission limit will be assured by monitoring of the sulfur content of the coal to maintain a maximum coal sulfur content of 1.5 percent (weighted monthly average). The sulfur content of each coal shipment is analyzed by the vendor using ASTM-4239 Method C and the data is furnished to the permittee. A log of the coal sulfur content must be maintained at the facility and kept available for inspection by the Technical Secretary or his representative. Compliance for the SO_2 emission rate is determined by reference to

the following emission factors for bituminous coal and fuel oil combustion from AP-42:

Pollutant	Emission Factor (pounds/ ton of coal)
Sulfur dioxide	38S where S = weight % sulfur in coal

Data from AP-42 Fifth Edition, January 1995, Table 1.1-1 (enclosed as Attachment 2)

TAPCR 1200-03-09-.02(11)(e)1(iii)

E4-2. The owner or operator of this source with restricted operating capacity must maintain a daily log of operating capacities and keep it available for inspection by Division personnel on request. The owner /operator shall submit by letter on or before January 31 of each year the total operated capacity for the previous calendar year.

TAPCR 1200-03-19-.06

Compliance Method: In lieu of submitting the previous calendar year operated capacity by January 31 of each year, the permittee shall include information of the monitoring of total actual heat input to this fuel burning installation in the semiannual reports and annual compliance certifications of condition E2 of this permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E4-3. No person shall cause, suffer, allow or permit discharge of visible emissions from any fugitive dust source with an opacity in excess of ten (10) percent for an aggregate of fifteen (15) minutes. Readings are to be taken across the narrower direction if the generation site is rectangular or oblong and are to be perpendicular to the wind direction (±30°). Readings will be taken approximately every 15 seconds for any consecutive fifteen minute period and an arithmetic average used to determine compliance. Any other items not covered here will be in accordance with the general specifications of the reference method as specified in Part 1200-03-16-.01(5)(g)9.

TAPCR 1200-03-08-.02 and 1200-03-19-.05(2)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for VEE Method 2 enclosed as Attachment 1.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E4-4. The permittee is placed on notice that the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters (40 CFR §63 Subpart DDDDD or the Boiler MACT) was promulgated by the US EPA after final action on reconsideration on January 31, 2013. The EPA on December 1, 2014 has provided a notice of reconsideration of final rule. Once this rule becomes effective during the permit term and any boilers or process heaters in the facility become subject to the rule, then this permit can be re-opened or revised as required to incorporate all new applicable requirements. The Division may utilize the minor permit modification and/or re-opening for cause to install the relevant standard conditions and compliance options unless the facility wishes to utilize compliance options not explicitly stated in the standard. In this case, the facility will apply for a significant modification or follow appropriate procedures per EPA guidance to install the desired conditions and compliance options in the permit. Some compliance options such as emissions averaging may preclude minor modification. In addition, the permittee is placed on notice that the operation of this source may be subject to the requirements of section 112(j) of the federal Clean Air Act, if applicable.

The regulatory provisions for hollow permits for MACT are specified under 1200-3-31-.04(1)(a) and (b) of TAPCR. The intent of the APC Board for case by case

determinations for HAPS control requirements is specified under 1200-3-31-.03(1) of TAPCR. Under this provision the following is pertinent:

" the Technical Secretary shall recognize any federal law, federal regulation or lawfully promulgated policy of the US EPA pertaining to case by case determinations of a hazardous air pollutant requirements as the minimum acceptable criteria prior to the setting of a case by case hazardous air pollutant requirement under the provision of this rule."

Conditions E4-10, E4-12, E4-14, E4-15, E4-17, and E4-18 may be superseded by the requirements of the final rule after the compliance date stipulated by the rule. These conditions also contain requirements that were applicable requirements from the vacated 40 CFR §63 Subpart DDDDD Boiler MACT and can be used to demonstrate compliance with case-by-case Boiler MACT requirements (112 (j)) if required and implemented by the State.

E4-5. The maximum heat input for each stoker coal fired boilers 2, 3, and 4 (sources 37-0028-02-04) shall not exceed 191.4 million BTU per hour and the maximum heat input for stoker coal fired boiler 1 (source 37-0028-01) shall not exceed 185 million BTUs per hour. TAPCR 1200-03-09-.02(3)

Compliance Method: Compliance with this limit is demonstrated by the information maintained in the records required by Condition E4-16.

E4-6. The maximum heat input for each of the natural gas fired burners shall not exceed 40.00 million BTU per hour. TAPCR 1200-03-09-.02(3)

Compliance Method: Compliance with this limit is demonstrated by the information maintained in the records required by Condition E4-16.

E4-7. Only coal and natural gas shall be used as fuels for this source. TAPCR 1200-03-09-.02(3)

Compliance Method: Compliance with this limit is demonstrated by the information maintained in the records required by Condition E4-16.

E4-8. The maximum amount of coal usage shall not exceed 60,716 tons per boiler during any period of twelve (12) consecutive months. The sulfur content of the coal shall not exceed 1.5% by weight. TAPCR 1200-03-09-.02(3)

Compliance Method: Compliance with this limit is demonstrated by the information maintained in the records required by Condition E4-16.

E4-9. The maximum amount of natural gas usage shall not exceed 687 million cubic feet per boiler during any period of twelve (12) consecutive months. TAPCR 1200-03-09-.02(3)

Compliance Method: Compliance with this limit is demonstrated by the information maintained in the records required by Condition E4-16.

E4-10. Particulate Matter (TSP) emitted from each boiler shall not exceed 0.07 pounds per MMBTU of heat input and 13.4 pounds per hour. These restrictions are based on the Title V Permit Significant Modification application dated October 11, 2006, revision 1 dated October 19, 2006, revision 2 dated August 13, 2008, and Title V Permit Renewal Revision dated December 15, 2008, and TAPCR 1200-03-06-.03(2)

Compliance Method: Compliance assurance for the particulate emission standard of this source is based upon compliance with the maximum heat input limit specified in condition E4-5 and the requirements of conditions E4-17 and E4-18 of this permit.

The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and

dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

E4-11. Nitrogen Oxides (NOx) emitted from each boiler shall not exceed 0.4 pounds per MMBTU of heat input and 76.6 pounds per hour. This restriction is based on the Title V Permit Significant Modification application dated October 11, 2006, revision 1 dated October 19, 2006, revision 2 dated August 13, 2008, and Title V Permit Renewal Revision dated December 15, 2008 and calculations using the maximum amount of annual coal combustion and AP-42 emissions factors.
TAPCR 1200-03-06-.03(2)

Compliance Method: Compliance assurance for the nitrogen oxides emission standard for this source is based upon compliance with condition E4-5 of this permit and AP-42, Chapter 1, Section 1, emission factors.

E4-12. Carbon monoxide (CO) emitted from each boiler shall not exceed 34.7 pounds per hour.

This restriction is based on the Title V Permit Significant Modification application dated October 11, 2006, revision 1 dated October 19, 2006, revision 2 dated August 13, 2008, and Title V Permit Renewal Revision dated December 15, 2008 and calculations using the maximum amount of annual coal combustion and AP-42 emissions factors.

TAPCR 1200-03-06-.03(2)

Compliance Method: Compliance assurance for the carbon monoxide emission standard for this source is based upon compliance with condition E4-5 of this permit and AP-42, Chapter 1, Section 1, emission factors.

E4-13. Volatile Organic Compounds (VOC) emitted from each boiler shall not exceed 1.5 pounds per hour. This restriction is based on the Title V Permit Significant Modification application dated October 11, 2006, revision 1 dated October 19, 2006, revision 2 dated August 13, 2008, and Title V Permit Renewal Revision dated December 15, 2008 and calculations using the maximum amount of annual coal combustion and AP-42 emissions factors. TAPCR 1200-3-6-.03(2)

Compliance Method: Compliance assurance for the VOC emission standard for this source is based upon compliance with condition E4-5 of this permit and AP-42, Chapter 1, Section 1, emission factors.

E4-14. Hydrogen chloride (HCl) emitted from each boiler shall not exceed 0.09 lb per MMBtu of heat input and 17.3 pounds per hour. These restrictions are based on the Title V Permit Significant Modification application dated October 11, 2006, revision 1 dated October 19, 2006, revision 2 dated August 13, 2008, and Title V Permit Renewal Revision dated December 15, 2008 and TAPCR 1200-03-06-.03(2).

Compliance Method: Compliance assurance for the HCl emission standard of this source is based upon compliance with the maximum heat input limit specified in condition E4-5 of this permit and through the following alternative compliance methods.

Alternative Compliance Method 1: Compliance with the applicable emission limit shall be demonstrated using fuel analysis monitoring based on a semiannual weighted average. The source must develop and submit a fuel analysis plan for review and approval according to the following procedures and requirements no later than 60 days before the date intended to demonstrate compliance.

1. Shall include the identification of all fuel types anticipated to be burned in each boiler or process heater.
2. For each applicable fuel type, the notification of whether you or the fuel supplier will be conducting the fuel analysis.
3. For each applicable fuel type a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples. Samples shall be collected at a location and a frequency that most

accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.
4. For each applicable fuel type, the analytical methods, with the expected minimum detection levels.
5. If you request to use an alternative analytical method other than SW-846-9250 or ASTM-D6721-01 you must include a detailed description of the methods and procedures that will be used.
6. If you will be using fuel analysis from a fuel supplier in lieu of site specific sampling and analysis, the fuel supplier must use the analytical methods required by the approved fuel analysis plan.
7. A log of the Chlorine concentration in lb/MMBtu must be maintained at the facility and kept available for inspection by the Technical Secretary or his representative.

Alternative Compliance Method 2: If the results of the fuel analysis calculation are higher than the maximum hydrogen chloride emission limit compliance shall be demonstrated using performance testing. Within sixty (60) days of calculating that the fuel analysis monitoring based on a semiannual weighted average is greater than the emission limit the source shall develop and submit a site-specific performance monitoring and testing plan for hydrogen chloride for review and approval. Within 180 days of submittal of the performance monitoring and testing plan for hydrogen chloride you must conduct a performance test to demonstrate that the hydrogen chloride emissions do not exceed the emission limit.

Alternative Compliance Method 3: If the results of the performance test conducted in accordance with Alternative Method 2 and the associated site-specific performance monitoring and testing plan indicate that the maximum hydrogen chloride emissions are higher than the limit compliance shall be demonstrated using the calcium hydroxide sorbent injection system. Within sixty (60) days of submitting performance test data that indicates emissions are higher than the hydrogen chloride limit the source shall develop and submit a site-specific performance monitoring and testing plan for hydrogen chloride and for the use of the calcium hydroxide sorbent injection system for review and approval. Within 180 days of submittal of this plan the source must conduct a performance test to demonstrate that the hydrogen chloride emissions do not exceed the emissions limit and to determine the sorbent injection rate. The parameters and the averaging blocks for the sorbent injection rate will be determined as a part of the performance test for this alternative compliance method.

E4-15. Mercury emitted from each boiler shall not exceed 0.000009 lb per MMBtu of heat input and 0.0017 pounds per hour. These restrictions are based on the permit application dated October 11, 2006, revision 1 dated October 19, 2006, revision 2 dated August 13, 2008, and Title V Permit Renewal Revision dated December 15, 2008 and TAPCR 1200-03-06-.03(2).

Compliance Method: Compliance assurance for the Mercury emission standard of this source is based upon compliance with the maximum heat input limit specified in condition E4-5 of this permit and through the following alternative compliance methods.

Alternative Compliance Method 1: Compliance with the applicable emission limit shall be demonstrated using fuel analysis monitoring based on a semiannual weighted average. The source must develop and submit a fuel analysis plan for review and approval according to the following procedures and requirements no later than 60 days before the date intended to demonstrate compliance.

1. Shall include the identification of all fuel types anticipated to be burned in each boiler or process heater.
2. For each applicable fuel type, the notification of whether you or the fuel supplier will be conducting the fuel analysis.
3. For each applicable fuel type a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples. Samples shall be collected at a location and a frequency that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

4. For each applicable fuel type, the analytical methods, with the expected minimum detection levels.
5. If you request to use an alternative analytical method other than ASTM-D6722-01 you must include a detailed description of the methods and procedures that will be used.
6. If you will be using fuel analysis from a fuel supplier in lieu of site specific sampling and analysis, the fuel supplier must use the analytical methods required by the approved fuel analysis plan.
7. A log of the mercury concentration in lb/MMBtu must be maintained at the facility and kept available for inspection by the Technical Secretary or his representative.

Alternative Compliance Method 2: If the results of the fuel analysis calculation are higher than the maximum mercury emission limit compliance shall be demonstrated using performance testing. Within sixty (60) days of calculating that the fuel analysis monitoring based on a semiannual weighted average is greater than the emission limit the source shall develop and submit a site-specific performance monitoring and testing plan for mercury for review and approval. Within 180 days of submittal of the performance monitoring and testing plan for hydrogen chloride you must conduct a performance test to demonstrate that the mercury emissions do not exceed the emission limit.

Alternative Compliance Method 3: If the results of the performance test conducted in accordance with Alternative Method 2 and the associated site-specific performance monitoring and testing plan indicate that the maximum mercury emissions are higher than the limit compliance shall be demonstrated using the bromine powder activated carbon sorbent injection system. Within sixty (60) days of submitting performance test data that indicates emissions are higher than the mercury limit the source shall develop and submit a site-specific performance monitoring and testing plan for mercury and for the use of the bromine powder activated carbon sorbent injection system for review and approval. Within 180 days of submittal of this plan the source must conduct a performance test to demonstrate that the mercury emissions do not exceed the emission limit and to determine the sorbent injection rate. The parameters and the averaging blocks for the sorbent injection rate will be determined as a part of the performance test for this alternative compliance method.

E4-16. The permittee shall maintain a record of the type of fuel used (coal, natural gas), fuel usage, and actual heat input at this source, in a form that readily shows compliance with Condition(s) E4-5, E4-6, E4-7, E4-8, and E4-9 must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative in tables that contain the same information as that outlined in the following example tables. The actual heat input for these boilers shall be based upon a heat content of 13,812 BTU’s per pound of coal and 1000 BTU’s per cubic feet of natural gas. All data, including all required calculations, must be entered into the log no later than seven (7) days from the end of the day for which the data is required. All data, including all required calculations, must be entered into the log no later than thirty (30) days from the end of the month for which the data is required. The permittee shall retain this record at the source location for a period of not less than five (5) years and keep this record available for inspection by the Technical Secretary or his representative. TAPCR 1200-03-10-.02(2)(a)

MONTHLY LOG: Source 37-028-01-04, Calculation of Heat Input for Boiler # ----.

Month		Year:			
Date	Type of Fuel Used	Fuel Usage per Hour	Hours of Operation	Heat Input Rate per Hour*	MMBtu per hour, Daily Average
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
31					
Total					

Based on 13,812 BTU's per pound of coal or 1000 BTU's per cubic feet of natural gas.

YEARLY FUEL USAGE

MONTH/YEAR	Natural Gas Usage per Boiler (standard cubic feet (scf) per month)	Coal Usage per Boiler (tons per month)
TOTAL		

E4-17. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.03(6) , TAPCR 1200-03-05-.01(1), and TAPCR 1200-03-10-.02(10)(a)

Compliance Method: Compliance shall be demonstrated by installing, operating, and maintaining a continuous opacity monitor as stipulated in the approved performance monitoring plan submitted in accordance with condition E4-18.

Consistent with the requirements of Chapter 1200-03-20 and Rule 1200-03-05-.02, due allowance may be made for visible emissions in excess of that allowed in this permit which are necessary or unavoidable due to routine startup and shutdown conditions

Nothing in this permit is a waiver of or otherwise precludes the permittee from asserting any defense that is available to the permittee under Tennessee law. An exception shall be made for any periods where the source operated above any of the applicable maximum operating limits or below any of the applicable minimum operating limits if the source had a startup, shutdown, or malfunction and the source took actions consistent with an approved startup, shutdown, and malfunction plan. The startup, shutdown, and malfunction plan shall be submitted no later than sixty (60) days before the date intended to demonstrate compliance. It shall include a detailed description of the compliance reports to be submitted and actions to be taken.

E4-18. Within 60 days after achieving the maximum production rate at which the facility will be operated, but no later than 180 days after initial start-up, the owner or operator shall furnish the Technical Secretary a written report of the results of an emissions performance test for particulate matter. The performance test shall be conducted and data reduced in accordance with methods and procedures specified in the current 40 CFR 60, Appendix A. The source must develop and submit a site-specific performance monitoring and testing plan for particulate matter for review and approval no later than sixty (60) days before the date intended to demonstrate compliance. TAPCR 1200-03-05-.03(8)

37-0028-10 Source Description: <u>Open Burning of Explosive Contaminated Materials</u>

E5. Conditions E5-1 through E5-8 apply to source 37-0028-10

E5-1. This source shall only operate (actively start fires) during the hours between 8:30 AM and 7:30 PM daily and shall not be operated in excess of 400 hours per year.

TAPCR 1200-03-04-.04(1)(h), 1200-03-04-.04(1)(k) & 1200-03-19-.05(2)

Compliance Method: Compliance with this condition shall be assured by the recordkeeping of condition E5-4.

TAPCR 1200-03-19-.06

E5-2. It is recognized that there are two categories of explosive contaminated materials open burning. The following procedures shall be adhered to in determining whether or not acceptable pollutant dispersion conditions are present:

(a) Daily open burning of trash container waste in the cage receptacle will not be permitted in the instance of an air stagnation advisory in East Tennessee. It will be the responsibility of the permittee to monitor the local National Oceanic and Atmospheric Administration's Weather Service Office bulletins to determine if acceptable pollutant dispersion conditions are present.

(b) Quarterly open burning of explosive contaminated materials not appropriate for burning in the cage receptacle shall be conducted only upon advance approval for each burn from the Division Air Pollution Control's Johnson City Environmental Field Office. Under no circumstances shall the permittee open burn during an air stagnation advisory in East Tennessee.

TAPCR 1200-03-04-.04(1)(h), 1200-3-4-.04(1)(k) & 1200-03-19-.05(2)

E5-3. Burning is limited to non-radioactive, explosive, shock sensitive, chemically unstable, or highly reactive wastes, packaging, or contaminated or potentially contaminated combustible materials. Priming materials used to facilitate such burning shall be limited to #1 or #2 grade fuel oils, and wood waste.

TAPCR 1200-03-04-.04(1)(h) & 1200-03-04-.04(1)(k)

E5-4. The owner or operator of this source with restricted operating hours must maintain a daily log of operating hours and keep it available for inspection by Division personnel. The owner or operator shall submit by letter on or before January 31 of each year the total hours of operation for the previous calendar year and the maximum daily operation for the calendar year.

TAPCR 1200-03-19-.06
Compliance Method: In lieu of submitting the previous calendar year operating hours by January 31 of each year, the permittee shall include information of the monitoring of operating hours at this source in the semiannual reports and annual compliance certifications of condition E2 of this permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-5. This permit does not, and shall not be construed to authorize Holston Army Ammunition Plant to open burn explosive contaminated wastes which were shipped to Holston army Ammunition Plant for the purpose of disposal, except when such burning must be conducted to safely dispose of this material. TAPCR 1200-03-19-.05

E5-6. Open burning of barium chloride explosive contaminated materials is permitted subject to the following restriction:
Explosives contaminated materials containing barium chloride to be open burned will be limited to 2 filter bags per batch with the concentration of barium chloride less than or equal to 0.01% of the bag's weight and 60 probe socks per batch with the concentration of barium chloride being less than or equal to 0.01% of the sock's weight. The Technical Secretary may require proof of compliance with this condition.

TAPCR 1200-03-19-.05

E5-7. Open burning of triamino-trinitro-benzene contaminated materials is permitted subject to the following restriction:
Explosives contaminated materials containing triamino-trinitro-benzene to be open burned will be limited to 300 fiber drums and liners/month at present and 2100 fiber drums and liners/month in the event of mobilization with the triamino-trinitro-

benzene contamination being limited to 0.01% by weight of the fiber drum and liner's weight. The Technical Secretary may require proof of compliance with this condition.

TAPCR 1200-03-19-.05

E5-8. This permit is valid only for the site approved. The burn site shall not be changed without an official approval from the Technical Secretary's representative at the Johnson City Environmental Field Office.

TAPCR 1200-03-19-.05

37-0028-11 Source Description: Refuse Incineration Units A & B (PES B-230-B)
Combustall Incinerators; Propane Gas Fired; Overfire and Afterfire Burners
Noncontaminated Refuse Incineration
3.69 Million Btu/hr. Nominal Heat Input Capacity Each

Removed from operation

37-0028-12 Source Description: RDX Nitration Process (PES B-D1-1)
Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; (2) Scrubbers for Control

E7. Condition E7-1 applies to source 37-0028-12

E7-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-13 Source Description: RDX Nitration Process (PES B-D3-1)
Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; (2) Scrubbers for Control

E8. Condition E8-1 applies to source 37-0028-13

E8-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-14 Source Description: **HMX Nitration Process (PES B-D6-1)**
Nitration, Aging, & Simmering
Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, (2) Packed Column Scrubbers for Control

E9. Condition E9-1 applies to source 37-0028-14

E9-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-15 Source Description: **RDX and HMX Nitration Process (PES B-D7-1)**
Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; Scrubber for Control

E10. Condition E10-1 applies to source 37-0028-15

E10-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-16 Source Description: **Filtering and Washing of Crude RDX (PES B-E1-1)**
Packed Scrubber Control

E11. Conditions E11-1 through E11-2 apply to source 37-0028-16

Removed

37-0028-17 Source Description: Filtering and Washing of Crude RDX and HMX (PES B-E3-1)
Jet Venturi Fume Scrubber Control

E12. Condition E12-1 applies to source 37-0028-17

E12-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-18 Source Description: RDX Nitration Process (PES B-D2-1)
Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor, Acetic Acid/RDX Slurry; Scrubber for Control

E13. Condition E13-1 applies to source 37-0028-18

E13-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-19 Source Description: RDX Nitration Process (PES B-D8-1)
Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; Scrubber for Control

E14. Condition E14-1 applies to source 37-0028-19

E14-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air

Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-20 Source Description: **RDX Nitration Process (PES B-D9-1)**
Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; Scrubber for Control

E15. Condition E15-1 applies to source 37-0028-20

E15-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-21 Source Description: **RDX and HMX Continuous Nitration Process (PES B-D10-1)**
Simmering and Aging Processes
Inputs: Nitric Acid/Ammonium Nitrate, Acetic Acid/Hexamine, Acetic Anhydride, Water, Dilution Liquor; Scrubber for Control

E16. Conditions E16-1 through E16-3 apply to source 37-0028-21

E16-1. Volatile organic compounds emitted from either source shall not exceed 5.47 pounds per hour.
TAPCR 1200-03-07-.07(2)
Compliance Method: (a) A VOC collection efficiency of 80 percent is achieved with a scrubber solution acetic acid content of less than 15 percent. At reactivation of this source, the scrubber solution shall be analyzed once per shift and adjusted as needed to maintain an acetic acid content of less than 15 percent. A parametric relationship between scrubber solution overflow rate and acetic acid content/ scrubber efficiency shall be established. The scrubber solution overflow rate / make-up water flow rate shall be monitored continuously with the PLC system to allow adjustment of the overflow rate / make-up water flow rate ratio. Compliance with this monitoring procedure shall be included in the reports of condition E2.
(b) Production batch records shall be maintained and monitored to correlate production and the calculated maximum VOC emission rate of 1.33 pounds per hour (emission calculation from Chapter 49 application revision of September 8, 2000,

page number 49-11 (summarized in Attachment 4), revised November 12, 2004. The results of this monitoring shall be included in the reports of condition E2.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E16-2. Nitrogen oxides (NO_X) emitted from either source shall not exceed 1.9 pounds per hour.

TAPCR 1200-07-.07(2)

Compliance Method: A NO_X collection efficiency of 36 percent is achieved with a scrubber solution acetic acid content of less than 15 percent. At reactivation of this source, the scrubber solution shall be analyzed once per shift and adjusted as needed to maintain an acetic acid content of less than 15 percent. A parametric relationship between scrubber solution overflow rate and acetic acid content/ scrubber efficiency shall be established. The scrubber solution overflow rate / make-up water flow rate shall be monitored continuously with the PLC system to allow adjustment of the overflow rate / make-up water flow rate ratio. Compliance with this monitoring procedure shall be included in the reports of condition E2.
(b) Production batch records shall be maintained and monitored to correlate production and the calculated maximum NOX emission rate of 1.9 pounds per hour (emission calculation from Chapter 49 application revision of September 8, 2000, page number 49-11 (summarized in Attachment 4)), revised November 12, 2004. The results of this monitoring shall be included in the reports of condition E2.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E16-3. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-3-5-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-22 Source Description: **Recrystallization of RDX (PES B-G2-1)**
(5) Solvent Recovery Condensers

E17. Condition E17-1 applies to source 37-0028-22

E17-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-23 Source Description: Recrystallization of RDX or HMX (PES B-G7-1)
Condenser Control; (4) Primary Condensers & Vent Condenser for Solvent Recovery
PSD-LAER

E18. Conditions E18-1 through E18-3 apply to source 37-0028-23

E18-1. **a)** Volatile organic compounds (VOC) emitted from this source shall not exceed 18.0 pounds per hour.

TAPCR 1200-03-18-.03(2) (regulations when limits were established) leading to 1200-03-09-.01(5)(b)2

b) Volatile organic compounds emitted from this source shall not exceed 9.9 tons per year.

TAPCR 1200-3-26-.02(9)(g)1. fee agreement per permittee's request in permit application revision dated April 16, 1999.

Compliance Method: For a) of this condition, compliance with this limit is determined by monitoring of batch records of production rates and solvent additions to storage tanks and dissolvers associated with this source and material balance calculations based upon this process monitoring. A monthly calculation shall be performed and recorded in a log as follows:

VOC emission (lbs / hr) = monthly VOC emission (lbs) / monthly hours of production at this source (hr)

For fee purposes for b) of this condition, the permittee shall submit calculations of VOC emissions (tons per year) for assurance of compliance along with the emissions analysis required by condition E1.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E18-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

E18-3. If required by the Technical Secretary, total gaseous nonmethane organic compounds (NMOC) emissions from this source shall be determined by Method 25 outlined in the Federal Register, vol. 45, no. 194, October 3, 1990, beginning on page 65959.

37-0028-24 Source Description: **Recrystallization of RDX (PES B-G8-1)**
Vapor Recovery on Condenser Vent A; Primary Condenser & Vent Condenser **LAER-PSD**

E19. Conditions E19-1 through E19-2 apply to source 37-0028-24

E19-1. Volatile organic compounds emitted from this source shall not exceed 0.5 pounds per hour.

TAPCR 1200-03-18-.03(2) (regulations when limits were established) leading to 1200-03-09-.01(5)(b)2

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of volatile organic compounds. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source 37-0028-24 (recrystallization of RDX).

TAPCR 1200-03-09-.04(5)(c)3

E19-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-25 Source Description: **Recrystallization of RDX (PES B-G9-1)**
(4) Primary Condensers & Vent Condenser for Solvent Recovery by Distillation; Condenser Vent

E20. Condition E20-1 applies to source 37-0028-25

E20-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-3-5-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-26 (Including Sources 37-0028-27 and ~~37-128-39~~, 37-0028-102)
Source Description: Agile Manufacturing (PES B-G10-1, B-G10A-1, and B-E10-1 (Only includes process vessels/tanks (including corresponding emission allowances) utilized in conjunction with 37-0028-26 and -27**)**

(4) Primary Condensers and (2) Vent Condensers for Solvent Recovery; Condenser Vents (2), Fume Scrubber; and NOx scrubber

Various processing and storage vessels with an interchangeable configuration to accommodate the manufacture of varying products. The primary products currently manufactured are Dinitroanisole, Dimethyl Dinitrobutane, and Nitrotriazolone but the process can be adjusted to manufacture multiple products.

E21. Conditions E21-1 through E21-5 apply to sources 37-0028-26, 37-0028-27, and portions of ~~37-1028-39~~, 37-0028-102

E21-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures of the Division's opacity Matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E21-2. Particulate matter emitted from this source shall not exceed 5.39 pounds per hour.

TAPCR 1200-03-07-.03(1)

Compliance Method: For RDX Recrystallization and Coating Operations, compliance with this limit shall be determined by recordkeeping of Batch production rates and correlated with the calculated maximum emissions rate of 0.02 pounds per hour per mix tank (summarized in Attachment 5) at a maximum process capacity of 5,555 pounds per hour of RDX. For other operations, compliance with this limit shall be determined by recordkeeping of batch production rate and correlated with calculated maximum emissions for the respective operations as contained in the permit application (as applicable).

TAPCR 1200-03-09-.02(11)(e)1(iii)

E21-3. This source is permitted to operate as a flexible manufacturing facility for any of the processes listed in the source description or other insignificant emission activities and may include the utilization of portions of sources 37-0028-27 and ~~37-1028-39~~,
37-0028-102. TAPCR 1200-03-09-.02(6)

Compliance Method: Compliance with this condition shall be determined by recordkeeping of mode operation and the batch production rates and correlated with calculated maximum emissions rate as contained in the permit application.

E21-4. Nitrogen Oxides (NO_X) emitted from this source shall not exceed 15 tons per year. TAPCR 1200-03-07-.07(2)

Compliance Method: NOx emissions and scrubber efficiency for each respective manufacturing operation shall be determined by source testing and used to determine the per batch emission rate. Recordkeeping of the per batch emission rate multiplied by the number of batches manufactured shall be used to demonstrate the actual NO_X emission. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

E21-5. Portion of sources 37-0028-27 and ~~37-1028-39~~, 37-0028-102 including process vessels, tanks, and emission allowances may be utilized in conjunction with source 37-0028-26. TAPCR 1200-03-09-.02(6)

Compliance Method: Compliance with this condition shall be demonstrated by compliance with condition E21-3.

37-0028-28 Source Description: **Filtering and Washing of HMX or RDX (PES B-E4-1)**
Packed Bed Scrubber Control
Acetic Acid Recovery

E22. Condition E22-1 applies to source 37-0028-28

E22-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-43 Source Description: **Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (PES B-302B-7)**
Ammonia, Air, & Water Process Inputs
Extended Absorption Column

E23. Conditions E23-1 through E23-3 apply to source 37-0028-43

Removed

304 units 1-4 Removed
37-0028-48 Source Description: **Nitric Acid Concentration by Magnesium Nitrate Process (PES B-334-5)**
37-0028-63 Source Description: **Nitric Acid Concentration by Magnesium Nitrate Process (PES B-334-6)**
37-0028-64 Source Description: **Nitric Acid Concentration by Magnesium Nitrate Process (PES B-334-7)**
37-0028-65 Source Description: **Nitric Acid Concentration by Magnesium Nitrate Process (PES B-334-8)**
Each source performs the following and contains the following equipment:

Concentration of 61% Nitric Acid to 99% Nitric Acid with $Mg(NO_3)_2$ Catalyst
Evaporation, Condensation, and Scrubbing Processes
Absorption Tower and Steam Ejector Control

E24. Conditions E24-1 through E24-7 apply to sources 37-0028-48, -63, -64, and -65

E24-1. Total Nitrogen Oxides (NOx) emitted from sources 37-0028-48, -63, -64, and -65 shall not exceed 249 tons per year on a 12 months rolling average.

This emission limitation is established pursuant to Rule 1200-03-23-.03(2) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated February 6, 2006 from the permittee. The permittee has requested this emission limit in order to avoid the requirements of Best Available Retrofit Technology (BART). Prior to increasing this limit, the permittee must perform a BART determination, as described in Section IV of Appendix Y to 40 CFR Part 51 – Guidelines for BART Determinations Under the Regional Haze Rule.

This limitation 1) removes HSAAP from the list of Best Available Retrofit Technology (BART) eligible sources in Tennessee, and 2) allows the units to remain permitted in standby condition whereby they can be restarted.

Compliance Method: Compliance with this limit shall be determined through performing emissions testing on each source within 180 days of restarting any of these sources. The source owner or operator shall furnish the Technical Secretary with a written report of the results of an emissions performance test for the Nitrogen Oxides (NO_X). At least thirty (30) days prior to the actual testing date, the source owner or operator shall furnish the Technical Secretary with a notice as to the actual date of the testing. Approval of the testing protocol by the Technical Secretary or his representative is required prior to giving the notification of the actual testing date.

The results of each emissions test will be used to determine the actual emissions of each source per a 12 month rolling period. Compliance with the NO_x limit will be demonstrated through maintaining a log of actual emissions for each source and all sources combined. Calculations will be based on the emissions rate determined during each test for each source and the hours of operation for each source.

E24-2. The maximum material input rate for each source shall not exceed 10,508 pounds per hour on daily average basis.
TAPCR 1200-03-09-.02(3)

Compliance Method: A log of the material input rate, in a form that readily shows compliance with this condition, must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. All data, including all required calculations, must be entered into the log no later than seven (7) days from the end of the day for which the data is required. This log must be retained for a period of not less than five years.

E24-3. A record of the hours of operation of each source detailing the start-up and shut down times shall be maintained and used along with the emissions test data to calculate the NO_x emissions for the entire group of sources. TAPCR 1200-03-09-.02(3)

E24-4. Each source shall not exceed the allowable NO_x emissions (Tons/year) per source as detailed in the February 6, 2006 Significant Modification.

E24-5. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended on September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E24-6. Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years. TAPCR 1200-03-07-.07(2)

E24-7. Upon the malfunction/failure of any emission control device(s) serving this source, the operation of the process(es) served by the device(s) shall be regulated by Chapter 1200-03-20 of the Tennessee Air Pollution Control Regulations.

37-0028-49 Source Description: Lime Storage and Handling with Baghouse Control (PES B-235-1)

E25. Conditions E25-1 through E25-2 apply to source 37-0028-49

E25-1. Particulate matter emitted from this source shall not exceed 0.25 grain per dry standard cubic foot.

TAPCR 1200-03-07-.04(2)

This is a process emission source whose potential to emit is less than 5 tons per year of particulate matter. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-3-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source 37-0028-49 (lime storage and handling).

TAPCR 1200-03-09-.04(5)(c)3

E25-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-53 Source Description: Open Burning of Explosive Waste

E26. Conditions E26-1 through E26-8 apply to source 37-0028-53

E26-1. Open burning of explosive waste shall be conducted between the hours of 12:00 (noon) and 4:00 p.m. unless there is an air stagnation advisory in East Tennessee. In the instance of such an advisory, open burning shall be terminated at once. It will be the responsibility of the permittee to monitor the local National Oceanic and Atmospheric Administration's Weather Service Office bulletins to determine if acceptable pollutant dispersion conditions are present.

TAPCR 1200-03-04-.04(1)(k) & 1200-03-19-.05(2)

Compliance Method: Compliance with the recordkeeping of condition E26-4 is considered compliance with this condition.

TAPCR 1200-03-19-.06

E26-2. This source shall not be operated in excess of 1300 hours per year.

TAPCR 1200-03-19-.05(2)

Compliance Method: Compliance with this condition is assured by the recordkeeping of condition E26-4.

TAPCR 1200-03-19-.06

E26-3. Burning is limited to non-radioactive, explosive, shock sensitive, chemically unstable, or highly reactive wastes, packaging, or contaminated or potentially contaminated combustible materials including but not limited to explosive formulations, propellants, cellulosic ignition materials, plastic burn pan liners, and any contaminants present in the explosive waste. This limitation is established pursuant to Rule TAPCR 1200-03-04-.04(1)(k) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter and permit revision application dated February 1, 2005 from the permittee.

E26-4. The owner or operator of this source with restricted operating hours must maintain a daily log of operating hours and keep it available for inspection by Division personnel on request. The owner or operator shall submit by letter on or before January 31 of each year the total hours of operation for the previous calendar year and the maximum daily operation for the calendar year.

TAPCR 1200-03-19-.06

Compliance Method: In lieu of submitting the previous calendar year operating hours by January 31 of each year, the permittee shall include information of the monitoring of operating hours at this source in the semiannual reports and annual compliance certifications of condition E2 of this permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E26-5. This permit does not, and shall not be construed to authorize Holston Army Ammunition Plant to open burn explosive wastes which were shipped to Holston Army Ammunition Plant for the purpose of disposal, except when such burning must be conducted to safely dispose of material of an imminently hazardous nature.

E26-6. Open burning of barium chloride explosive waste is permitted subject to the following restriction:
Explosives waste to be open burned will be limited to 20 pounds per batch with a concentration of barium chloride less than or equal to 0.5%. The Technical Secretary may require proof of compliance with this condition.

TAPCR 1200-03-19-.05

E26-7. Open burning of triamino-trinitro-benzene contaminated waste is permitted subject to the following restrictions:

A. Explosives wastes containing TATB and any other similar material will be burned with easily combustible waste high explosives (HE) to ensure minimal particulate matter is emitted.
B. The ratio of the burn will be 60% waste high explosives (typically RDX or HMX mixtures) and 40% TATB or other similar materials. This ratio is derived from the burning of Composition B over the last 70 years at the ratio of 60% RDX and 40% TNT.

The Technical Secretary may require proof of compliance with this condition.

TAPCR 1200-03-19-.05

E26-8. This permit is valid only for the site approved. The burn site shall not be changed without an official approval from the Technical Secretary's representative at the Johnson City Environmental Assistance Center.

TAPCR 1200-03-19-.05

37-0028-56 Source Description: Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (PES B-302B-8)
Ammonia, Air, and Water Process Inputs
Extended Absorption Column

E27. Conditions E27-1 through E27-3 apply to source 37-0028-56

Removed

37-0028-57 Source Description: Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (PES B-302B-9)
Ammonia, Air, and Water Process Inputs
Extended Absorption Column

E28. Conditions E28-1 through E28-3 apply to source 37-0028-57

Removed

37-0028-58 Source Description: Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (PES B-302B-10)
Ammonia, Air, and Water Process Inputs
Extended Absorption Column

E29. Conditions E29-1 through E29-3 apply to source 37-0028-58

Removed

37-0028-67 Source Description: Ammonium Nitrate/Nitric Acid Solution Manufacturing (PES B-330-1)
Ammonia and Nitric Acid Reaction; Scrubber Control

E30. Condition E30-1 applies to source 37-0028-67

E30-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-75 Source Description: **Recrystallization of HMX (PES B-G5-1)**
(5) Solvent Recovery Condensers

E31. Condition E31-1 applies to source 37-0028-75

E31-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-76 Source Description: **Coating of HMX (PES B-G5-2)**
HMX recrystallization in Methyl Ethyl Ketone, n-Octane, Ethyl Acetate, Butyl Acetate, Isobutyl Acetate, Butyl Alcohol, Ethyl Alcohol, or Isopropyl Alcohol; Solvent Recovery

E32. Conditions E32-1 through E32-2 apply to source 37-0028-76

E32-1. Volatile organic compounds emitted from this source shall not exceed 0.8 pounds per hour.

TAPCR 1200-03-07-.07(2)

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of volatile organic compounds. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source 37-0026-76 (coating of HMX).

TAPCR 1200-03-09-.04(5)(c)3

E32-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air

Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-78 Source Description: **Filtration and Washing of HMX (PES B-E6-1)**
Acetic Acid Recovery
Jet Venturi Scrubber Control

E33. Condition E33-1 applies to source 37-0028-78

E33-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-79 Source Description: **Recrystallization and Coating of RDX (PES B-G1-1)**
(4) Primary Condensers and Vent Condenser for Solvent Recovery

E34. Condition E34-1 through E34-2 apply to source 37-0028-79

E34-1. Volatile organic compounds emitted from this source shall not exceed 3.4 pounds per hour.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit shall be determined by monitoring of batch production rate records and correlation with the calculated maximum emission rate at a maximum process capacity of 5,555 pounds per hour of RDX. This calculated maximum emission rate of 2.87 pounds per hour of VOC is referenced on page C-2 of Chapter 56 of the October 16, 1996 application (summarized in Attachment 6).

TAPCR 1200-03-09-.02(11)(e)1(iii)

E34-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air

Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-80 Source Description: **Recrystallization of RDX (PES B-G3-1)**
Dissolution, Distillation, and Condensation Processes
2 Primary Condensers and Vent Condenser for Solvent Recovery

E35. Conditions E35-1 through E35-2 apply to source 37-0028-80

E35-1. Volatile organic compounds emitted from this source shall not exceed 7.0 pounds per hour and 29 tons per year.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit shall be determined by monitoring of records of batch production rates and correlation with 12-12-90 source emission testing results (0.05 pounds average VOC emission per hour) obtained during maximum source process capacity operation (24 batches of RDX per day or 4,500 pounds RDX per hour). Calculations are referenced in the October 16, 1996 application on page C-1 of Chapter 58 – (summarized in Attachment 6).

TAPCR 1200-03-09-.02(11)(e)1(iii)

E35-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-81 Source Description: **Coating of RDX (PES G-3-2)**
RDX coating with lacquer / solvent mixture
Primary Condenser and Vent Condenser for Solvent Recovery

E36. Condition E36-1 applies to source 37-0028-81

E36-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four

(24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-82 Source Description: **Coating of RDX (PES B-G3-3)**
RDX Coating with lacquers containing Methyl Ethyl Ketone, and Distillation of Water Saturated with Cyclohexanone
Condenser for Recovery of Solvent

E37. Conditions E37-1 through E37-2 apply to source 37-0028-82

E37-1. Volatile organic compounds emitted from this source shall not exceed 1.3 pounds per hour.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit shall be determined by monitoring of records of batch production rates and correlation with the emission rates calculated for the maximum process capacity of 2,083 pounds water-saturated solvent/hour. These calculated emission rates of 1.04 pounds per hour for cyclohexanone, 0.09 lb/hr for MEK, 0.10 lb/hr for MEK, and 0.001 lb/hr for n-octane are referenced on pages C-2, C-3, C-4, & C-5 of Chapter 61 of the October 16, 1996 application (summarized in Attachment 6).

TAPCR 1200-3-9-.02(11)(e)1(iii)

E37-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-3-9-.02(11)(e)1.(iii)

37-0028-83 Source Description: **Recrystallization of RDX (PES B-G4-1)**
(4) Primary Condensers and Vent Condenser for Solvent Recovery

E38. Condition E38-1 applies to source 37-0028-83

E38-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in

any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-3-9-.02(11)(e)1.(iii)

37-0028-84 Source Description: **Recrystallization of RDX (PES B-G4-2)**
(2) Condensers for Solvent Recovery

E39. Condition E39-1 applies to source 37-0028-84

E39-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-85 Source Description: **Coating of RDX (PES B-G4-3)**
RDX coating with various lacquers containing n-Octane and Distillation of Cyclohexanone Saturated Water
Condenser for Solvent Recovery

E40. Conditions E40-1 through E40-2 apply to source 37-0028-85

E40-1. Volatile organic compounds emitted from this source shall not exceed 0.45 tons per month.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit shall be determined by monitoring of batch production rate records and correlation with the calculated maximum emissions rate at a maximum process capacity of 2,083 pounds of water saturated solvent per hour. The calculated maximum emissions rate of 1.04 pounds per hour for cyclohexanone and 0.001 pounds per hour for n-octane is referenced on page C-2 of Chapter 65 of the October 16, 1996 application (summarized in Attachment 6).

TAPCR 1200-3-9-.02(11)(e)1(iii)

E40-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in

any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-86 Source Description: **Recrystallization of HMX (PES B-G6-1)**
(5) Condensers for Solvent Recovery

E41. Condition E41-1 applies to source 37-0028-86

E41-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-87 Source Description: **HMX Recrystallization (PES B-G6-2)**
Condenser for Solvent Recovery

E42. Condition E42-1 applies to source 37-0028-87

E42-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-88 Source Description: **Coating of RDX or HMX (PES B-G6-3)**
Condenser for Solvent Recovery

E43. Condition E43-1 through E43-2 apply to source 37-0028-88

E43-1. Volatile organic compounds emitted from this source shall not exceed 1.1 pounds per hour. TAPCR 1200-03-07-.07(2)

This is a process emission source whose potential to emit is less than 5 tons per year of volatile organic compounds. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-3-9-.02(11)(e)1.(iii) and 1200-3-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-3-9-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source 37-0028-88 (coating of RDX or HMX).

TAPCR 1200-3-9-.04(5)(c)3

E43-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-89 Source Description: **Coating of RDX or HMX (PES B-G6-4)**
Coating of HMX or RDX with Various Solvent-based Lacquers/ Nitroplasticizer Solvent Recovery Condenser

E44. Condition E44-1 applies to source 37-0028-89

E44-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-92 Source Description: Lacquer Preparation (PES B-150-1)
Solvent and Binder Mixing; Vents A, B, C, D

E45. Conditions E45-1 through E45-2 apply to source 37-0028-92

E45-1. Volatile organic compounds emitted from this source shall not exceed 3.64 pounds per hour per vent, not to exceed a combined total of 7.28 pounds per hour. TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit shall be determined by monitoring of batch production rate records and calculation of the maximum emissions by the method presented on page C-2 of Chapter 37 of the October 16, 1996 application (summarized in Attachment 7).

TAPCR 1200-3-9-.02(11)(e)1(iii)

E45-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

37-0028-97 Source Description: Fly Ash Storage Bin (PES B-235-2)
Bagfilter Dust Collector Control

E46. Conditions E46-1 and E46-2 apply to source 37-0028-97

E46-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

E46-2. Particulate matter emitted from this source shall not exceed 0.25 grains per dry standard cubic foot.

TAPCR 1200-03-07-.04(2)

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of particulate matter. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-3-9-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source 37-0028-97 (fly ash storage bin).
TAPCR 1200-03-09-.04(5)(c)3

37-0028-98 Source Description: **Bulk Lime Silo @ Building 224 (PES B-224-B)**
Lime Unloading to Wastewater Treatment
Bagfilter Control

E47. Conditions E47-1 through E47-3 apply to source 37-0028-98

E47-1. Particulate matter emitted from this source shall not exceed 2.5 pounds per hour. TAPCR 1200-03-19-.05(2)

Compliance Method: Compliance with this limit is determined by the calculation contained in the permit application of October 16, 1996 on page C-1 of chapter 25 (summarized in Attachment 9).

TAPCR 1200-03-09-.02(11)(e)1(iii)

E47-2. This source shall not be operated in excess of 100 hours per year. The owner or operator of this source with restricted operating hours must maintain a log of operating hours and keep it available for inspection by Division personnel on request. The owner or operator shall submit by letter on or before January 31 of each year the total hours of operation for the previous calendar year.

TAPCR 1200-03-19-.05(2) and TAPCR 1200-03-19-.06

Compliance Method: In lieu of submitting the previous calendar year operating hours by January 31 of each year, the permittee shall include information of the monitoring of operating hours at this source in the semiannual reports and annual compliance certifications of condition E2 of this permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E47-3. (a) No person shall cause, suffer, allow or permit discharge of visible emissions from any fugitive dust source with an opacity in excess of ten (10) percent for an aggregate of fifteen (15) minutes. Readings are to be taken across the narrower direction if the generation site is rectangular or oblong and are to be perpendicular to the wind direction (±30°). Readings will be taken approximately every 15 seconds for any consecutive fifteen minute period and an arithmetic average used to determine compliance. Any other items not covered here will be in accordance with the general specifications of the reference method as specified in Part 1200-03-16-.01(5)(g)9.

TAPCR 1200-03-08-.02 and 1200-03-19-.05(2)

(b) Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

~~**37-1028-29**~~**, 37-0028-100 Source Description: Sodium Nitrate Recovery Process (PES B-T2-1)**
Sodium Nitrate Concentration & Drying; Rotary Dryer; Scrubber Control

E48. Condition E48-1 applies to source ~~37-1028-29~~, 37-0028-100

Removed

~~**37-1028-37**~~**, 37-0028-101 Source Description: Filtering and Washing of Crude RDX (PES B-E8-1)**
Packed Scrubber Control

E49. Conditions E49-1through E49-2 apply to source ~~37-1028-37~~, 37-0028-101

E49-1. Volatile organic compounds emitted from this source shall not exceed 3.0 pounds per hour. TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit is determined by monitoring batch production rate records and correlation to calculated emissions at a maximum process capacity of 6,300 pounds per hour of RDX. From process material balance emission rate calculation (referenced on page C-1 of Chapter 54 of the October 16, 1996 application (summarized in Attachment 3), the maximum emission rate is 2.4 pounds per hour of VOC.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E49-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

~~**37-1028-39**~~**, 37-0028-102 Source Description: Filtering and Washing of Crude RDX (PES B-E10-1)**
(2) Packed Scrubbers for Control

E50. Conditions E50-1 through E50-2 apply to source ~~37-1028-39~~, 37-0028-102

E50-1. Volatile organic compounds emitted from this source shall not exceed 5.9 pounds per hour (25.9 tons per year).

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit is determined by monitoring of batch production rate records and correlation to the calculated emissions rate at a maximum process capacity of 6,300 pounds. From process emissions analysis, referenced on page C-2 of Chapter 55 of the October 16, 1996 application (summarized in Attachment 3), the maximum emission rate is 2.64 pounds per hour of VOC and calculated scrubber efficiency is 96% for VOC.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E50-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

~~**37-1028-90**~~**, 37-0028-103 Source Description: Coating of RDX or HMX (PES B-G5-3)**
Solvent Recovery Condenser

E51. Condition E51-1 applies to source ~~37-1028-90~~, 37-0028-103

E51-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

~~**37-1028-96**~~**,~~**37-0028-104 Source Description: Coal Handling System for Area B (PES B-200-4)**
with Coal Crusher, Conveyors, & Screens - Bagfilter, Enclosed Conveyors, & Water Spray Controls **NSPS**

E52. Conditions E52-1 through E52-5 apply to source ~~37-1028-96~~, 37-0028-104

E52-1. Particulate matter emitted from this source shall not exceed 3.5 pounds per hour. TAPCR 1200-03-07-.01(5)

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of particulate matter. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-3-9-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source ~~37-1028-96~~, 37-0028-104(coal handling system for Area B).

TAPCR 1200-03-09-.04(5)(c)3

E52-2. Visible emissions (including fugitive emissions) from this source shall not exhibit greater than ten percent (10%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.01(1), and TAPCR 1200-03-10-.02(10)(a), TAPCR 1200-03-05-.03(6) and the operating permit no. 033633P

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of particulate matter. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-3-9-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source ~~37-1028-96~~, 37-0028-104 (coal handling system for Area B).

TAPCR 1200-03-09-.04(5)(c)3

E52-3. Visible emissions from roads shall meet 10% opacity utilizing Tennessee Visible emission Evaluation (TVEE) Method 1, as adopted by the Tennessee Air Pollution Control Board on April 29, 1982, as amended on September 15, 1982, and as amended on August 24, 1984.

(This requirement is from the operating permit no. 033633P.) TAPCR 1200-03-09-.03(8)

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of particulate matter. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-3-9-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source ~~37-1028-96~~, 37-0028-104 (coal handling system for Area B).

TAPCR 1200-03-09-.04(5)(c)3

E52-4. The wet suppression system shall be maintained in good working condition in order to provide sufficient water pressure to effectively control fugitive emissions.

TAPCR 1200-03-08-.02

E52-5. Wet suppression shall be applied at the track hopper stockout chute and storage piles as necessary to control fugitive emissions.

TAPCR 1200-03-08-.02

~~**37-1028-98**~~**, 37-0028-105 Source Description: (4) Lacquer Pots for Lacquer Preparation (PES B-150-4)**
Mixing of Solvent and Binder; Loading of Lacquer to Lacquer Wagons

E53. Conditions E53-1 through E53-2 apply to source ~~37-1028-98~~, 37-0028-105

E53-1. Volatile organic compounds emitted from this source shall not exceed 1.0 pounds per hour.

TAPCR 1200-03-07-.07(2)

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of volatile organic compounds. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-3-9-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source ~~37-1028-98~~, 37-0028-105(lacquer pots for lacquer preparation).

TAPCR 1200-03-09-.04(5)(c)3

E53-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

~~**37-1028-99**~~**, 37-0028-106 Source Description: Sodium Nitrate Sludge Drying Process (PES B-T2-2)**
Double Drum Dryer; Scrubber Control

E54. Conditions E54-1 and E54-2 apply to source ~~37-1028-99~~, 37-0028-106

Removed

~~**37-1029-03**~~**, 37-0028-107 Source Description: Plasma Arc Cutting Machine (PES B-551-1)**
Cyclone Control

E55. Conditions E55-1 through E55-4 apply to source ~~37-1029-03~~, 37-0028-107

E55-1. Particulate matter emitted from this source shall not exceed 0.02 grains per dry standard cubic foot (0.45 pounds per hour).
TAPCR 1200-03-07-.04(1)

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of particulate matter. By annual certification of

compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source ~~37-1029-03~~, 37-0028-107 (plasma arc cutting machine).

TAPCR 1200-3-09-.04(5)(c)3

E55-2. Carbon monoxide emitted from this source shall not exceed 56.0 pounds per hour. TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit is determined by reference to the calculation contained on page 9 of Chapter 19 of the October 16, 1996 permit application (summarized in Attachment 8).

TAPCR 1200-03-09-.02(11)(e)1(iii)

E55-3. Operating time for this source shall not exceed 2,080 hours per year.

Compliance Method: A log of operating hours for this source must be maintained at the facility and kept available for inspection by the Technical Secretary or his representative.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E55-4. Visible emissions from this source shall not exceed zero (0) percent opacity as determined by EPA Method 9 as specified in the current 40 CFR 60, Appendix A (6 minute average).

TAPCR 1200-03-05-.03(6) and the operating permit no. 033183P

Compliance Method: Compliance with this standard shall be determined by the procedures of the Division's opacity Matrix dated June 18, 1996 enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1(iii

~~37-1029-05~~, 37-0028-108 Source Description: Recrystallization of RDX (PES B-G8-2)
Solvent Recovery Condensers
LAER-PSD

E56. Conditions E56-1 through E56-2 apply to source ~~37-1029-05~~, 37-0028-108

E56-1. Volatile organic compounds emitted from this source shall not exceed 12.9 pounds per hour.

TAPCR 1200-03-18-.03(2) (regulations when limits were established) leading to 1200-03-09-.01(5)(b)2

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of volatile organic compounds. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-3-9-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source ~~37-1029-05~~, 37-0028-108 (recrystallization of RDX).

TAPCR 1200-03-09-.04(5)(c)3

E56-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

~~**37-1029-06**~~**, 37-0028-109 Source Description: <u>Coating of RDX (PES B-G8-3)</u>**
Process Inputs: RDX, Solvents, Vistanex, Adipate, Oil Solvent Recovery Condensers
LAER-PSD

E57. Conditions E57-1 through E57-2 apply to source ~~37-1029-06~~, 37-0028-109

E57-1. Volatile organic compounds emitted from this source shall not exceed 0.5 pounds per hour.

TAPCR 1200-03-18-.03(2) (regulations when limits were established) leading to 1200-03-09-.01(5)(b)2

Compliance Method: This is a process emission source whose potential to emit is less than 5 tons per year of volatile organic compounds. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-3-9-.02(11)(e)1.(iii) and 1200-3-10-.04(2)(b)(1), and the compliance requirements of subpart 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for source ~~37-1029-06~~ , 37-0028-109 (coating of RDX).

TAPCR 1200-03-09-.04(5)(c)3

E57-2. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

~~**37-1029-09**~~**, 37-0028-110 Source Description: <u>RDX and HMX Nitration Process (PES B-D5-1)</u>**
Nitration, Aging and Simmering; (2) Packed Column Scrubbers

Process Inputs: Nitric Acid/Ammonium Nitrate, Hexamine/Acetic Acid, Acetic Acid, Acetic Anhydride
LAER-PSD

E58. Conditions E58-1 through E58-3 apply to source ~~37-1029-09~~, 37-0028-110

E58-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.
If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

E58-2. Volatile organic compounds emitted from this source shall not exceed 19.9 pounds per hour.

TAPCR 1200-03-18-.03(2) (regulations when the limit was established) leading to 1200-03-09-.01(5)(b)2
Compliance Method: Compliance with this limit shall be determined by monitoring the scrubber water flowrate two (2) times per shift when the process is in operation and monitoring of batch production rate records and correlation to measured emissions at a maximum process capacity of 2,588 pounds per hour of RDX or 436 pounds per hour of HMX. The scrubbing water flowrate readings shall be recorded in a log to be maintained at the facility. From process emissions testing (results referenced on page C-2 of Chapter 44 of the October 16, 1996 application and summarized in Attachment 4), the maximum emission rate is 0.45 pounds per hour of VOC.

TAPCR 1200-03-09-.02(11)(e)1(iii)

E58-3. Nitrogen oxides emitted from this source shall not exceed 2.2 pounds per hour. TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit shall be determined by monitoring of batch production rate records and correlation to the measured emissions rate at a maximum process capacity of 2,588 pounds per hour of RDX or 436 pounds per hour of HMX. From similar process emissions testing (results referenced on page C-2 of Chapter 44 of the October 16, 1996 application and summarized in Attachment 4), the maximum emission rate is 1.81 pounds per hour of nitrogen oxides.

TAPCR 1200-03-09-.02(11)(e)1(iii)

~~37-1029-14~~, 37-0028-111 Source Description: <u>Coating of RDX or HMX (PES B-G7-2)</u>
Process Inputs: RDX/HMX, Solvents, and Lacquer Mixtures
Solvent Recovery Condenser

E59. Conditions E59-1 through E59-2 apply to source ~~37-1029-14~~, 37-0028-111

E59-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by

Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

E59-2. Volatile organic compounds emitted from this source shall not exceed 2.1 pounds per hour.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this limit is determined by monitoring of batch production rate records, solvent additions to the storage tank and dissolver still, and process input of lacquers, and calculation of the VOC emissions. The calculation method is similar to the emissions calculations for source 37-0028-82 on pages C-2, C-3, C-4, & C-5 of Chapter 61 of the October 16, 1996 application (summarized in Attachment 6).

TAPCR 1200-03-09-.02(11)(e)1(iii)

37-0028-77 Source Description: Filtration and Washing of Crude RDX/ HMX (PES E-5-1)
Acetic Acid Recovery
Jet Venturi Scrubber Control

E60. Condition E60-1 applies to source 37-0028-77

E60-1. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for an aggregate of no more than five (5) minutes in any one (1) hour period, and no more than twenty (20) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by Tennessee Visible Emission Evaluation Method 2, as adopted by the Tennessee Air Pollution Control Board on August 24, 1984 (aggregate count). TAPCR 1200-3-5-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures specified in the Division's Opacity Matrix for TVEE Method 2 dated June 18, 1996 and amended September 12, 2005 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-3-9-.02(11)(e)1.(iii)

~~**37-1029-16**~~**, 37-0028-112 Source Description: Acetic Anhydride Production and Acetic Acid Concentration –**
Four (4) ketene furnaces, flare for alternate pollution control; 40 CFR 60, Subpart VVa
Process equipment and storage tanks, scrubbers used for pollution control 40 CFR 60, Subpart NNN
40 CFR 60, Subpart RRR
40 CFR 63, Subpart DDDDD

E61. Condition E61-1 through E61-20 apply to source ~~37-1029-16~~, 37-0028-112

E61-1. The total amount of steam used by this source (~~37-1029-16~~, 37-0028-112) and sources ~~37-1029-20~~ , 37-0028-114, and ~~37-1029-22~~ , 37-0028-shall not exceed the total amount of steam generated by source 37-1029-17, on an annual basis.

This operating limitation is established pursuant to the information contained in the agreement letter dated August 14, 2013, from the permittee. The permittee has requested this limitation in order to avoid PSD review. TAPCR 1200-03-09-.01(l)(d) and the application dated August 15, 2013.

Compliance method: The permittee shall determine the amount of steam (in pounds) generated by source (~~37- 1029-17~~, 37-0028-113) on a 12-month annual basis. This amount shall be compared to the amount of steam used by sources ~~37-1029-16~~, 37-0028-112, ~~37-1029-20~~, 37-0028-114 . A 12-month log updated monthly of the steam used by these sources shall be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. The monthly log shall be kept in the following format, or a similar format which readily provides the same information. This log shall be retained for a period of not less than five (5) years.

Month	Amount of Steam Used (pounds)		Total Steam (pounds)		Annual Difference 12-months Generated – 12-months Used (must be >0)
	~~37-1029-16~~, 37-0028-112	~~37-1029-20~~, 37-0028-114	Used	Generated by ~~37-1029-17~~, 37-0028-113	

E61-2. The stated heat input capacity of each ketene furnace is 2.38 Million British thermal units per hour (MMBtu/hr) for a total of 9.52 MMBtu/hr. TAPCR 1200-03-09-.01(l)(d) and the application dated August 15, 2013.

E61-3. Only natural gas and process off-gas shall be used as fuel for the ketene furnaces. TAPCR 1200-03-09-.01(l)(d) and the application dated August 15, 2013.

Compliance method: Compliance based on system design and annual certification.

E61-4. Particulate matter (TSP) emitted from this source shall not exceed 0.5 pound per hour, on a daily average basis.

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee.

Compliance method: Compliance with this emission limitation shall be assured by compliance with Conditions E61-2 and E61-3, and using the PM emission factor from AP-42, Chapter 1, Section 1.4, Table 1.4-2 (7.6 pounds PM per 10^6 standard cubic foot).

E61-5. Sulfur dioxide (SO_2) emitted from this source shall not exceed 1.0 pound per hour, on a daily average basis.

This emission limitation is established pursuant to Rule 1200-03-14-.01(3) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee.

Compliance Method: Compliance with this emission limitation shall be assured by compliance with Conditions E61-2 and E61-3, and using the SO_2 emission factor from AP-42, Chapter 1, Section 1.4, Table 1.4-2 (0.6 pounds SO_2 per 10^6 standard cubic foot).

E61-6. Nitrogen oxides (NO_x) emitted from this source shall not exceed 2.2 tons per year. TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with Conditions E61-2 and 61-3, and using the NO_x emission factor from AP-42, Chapter 1, Section 1.4, Table 1.4-1 (32 pounds NO_x per 10^6 standard cubic feet) for the furnaces and the NO_x emission factor from AP-42, Chapter 13, Section 5, Table13.5-1 (0.068 pounds $NO_x/10^6$ Btu) for the flare.

E 61-7. Carbon monoxide (CO) emitted from this source shall not exceed 33.1 tons per year. TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with Conditions E61-2 and E61-3, and using the CO emission factors developed during the tests required by Condition E61-10.

E61-8. Volatile organic compounds (VOC) emitted from the furnaces and the flare shall not exceed 3.6 tons per year.

This operating limitation is established pursuant to 1200-03-07-.01(5) and the information contained in the agreement letter dated August 14, 2013, from the permittee. The permittee has requested this limitation in order to avoid PSD review.

Compliance Method: Compliance with this emission limitation shall be assured by compliance with Conditions E61-2 and E61-3, and using the VOC emission factors developed during the tests required by Condition E61-10.

E61-9. Volatile organic compounds (VOC) emitted from the scrubbers shall not exceed 2.2 tons per year.

This operating limitation is established pursuant to 1200-03-07-.01(5) and the information contained in the agreement letter dated August 14, 2013, from the permittee. The permittee has requested this limitation in order to avoid PSD review.

Compliance Method: Compliance with this emission limitation shall be assured by compliance with Condition E61-12, and based on engineering calculations.

E61-10. Within 180 days of startup of this source, the permittee shall conduct testing in accordance with 40 CFR §60.704 (Test Methods and Procedures for New Source Performance Standards, Subpart RRR) and 40 CFR 60.664 (Test Methods and Procedures for New Source Performance Standards, Subpart NNN) or the Request for Performance Test Waiver and Alternate Monitoring for Emission Source Reference Number ~~37-1029-16~~, 37-0028-112 as submitted to EPA on February 1, 2012, and approved by EPA on December 7, 2012 (see Attachments 14 and 15). Scheduling of the tests, notification of the tests with testing protocols, and report submission shall be in accordance with 40 CFR 60.8 (Performance Tests for New Source Performance Standards, Subpart A).

E61-11. At least (30) days prior to conducting the performance test, the Technical Secretary shall be given notice of the test in order to afford him the opportunity to have an observer present. TAPCR 1200-03-09

E61-12. The scrubbers must operate when the equipment controlled by the scrubbers is in operation. In the event a malfunction/failure of a scrubber occurs, the operation of the process serviced by that scrubber shall be regulated by Rule 1200-03-20 of the Tennessee Air Pollution Control Regulations.

E61-13. The flare must be operated with a flame present at all times.

40 CFR §60.18(c)(2)

Compliance method: The presence of a flare pilot flame shall be monitored using a thermocouple or other equivalent device.

E61-14. The flare shall be designed for and operated with no visible emissions as determined by Reference Method 22 except for periods not to exceed a total of five minutes during any two consecutive hours.

40 CFR §60.18(c)(1)

Compliance method: Compliance shall be assured by conducting the performance test as required by Condition E61-10.

E61-15. Visible emissions from this source, with the exception of the flare, shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures of the Division's Opacity Matrix dated June 18, 1996 and amended September 11, 2013 (enclosed as Attachment 1).

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E61-16. Per 40 CFR 60, Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, the permittee shall establish a Leak Detection and Repair Program to minimize fugitive equipment leaks.

40 CFR §60, Subpart VV a

Compliance Method: Upon startup of this source, the permittee shall demonstrate compliance utilizing Method 21 or the alternative monitoring procedure- Sensory Leak Inspection and Repair for Equipment in Acetic Acid and/or Acetic Anhydride Service, as submitted to EPA on June 2, 2010, and approved by EPA on June 23, 2010 (see Attachments 12 and 13).

E61-17. This source shall comply with all applicable requirements of 40 CFR 63 Subpart DDDDD National Emission Standards for process heaters.

Compliance Method: Compliance requirements with this standard are outlined in Attachment 16.

TAPCR 1200-03-09

E61-18. Per the agreement letter dated August 14, 2013 from the permittee, the ketene furnace emission units will be considered started up once completed and the equipment is recognized to be able to make product. Prove out and full capacity operation should be achieved within 180 days and the corresponding Area A unit, emission source 82-0018-40, should be permanently shut down.

TAPCR 1200-03-09

E61-19. Routine maintenance, as required to maintain specified emission limits, shall be performed on all control devices for this source. Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years. All maintenance activities (including maintenance that is in-process) shall

be entered in the log no later than seven (7) days following the start of the maintenance.

TAPCR 1200-03-07-.07(2) and TAPCR 1200-03-10-.02(2)(a).

E61-20. This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards.

Compliance Method: Compliance requirements with these standards are outlined in Attachment 11.

TAPCR 1200-03-09-.03(8)

~~37-1029-17~~, 37-0028-113 **Source Description:** **Natural gas fired only Steam Generating Units**	
Four low NOx micro boilers rated at 11.54 MMBtu/hr each and combined	40 CFR 60, Subpart Dc
heat and power (CHP) cogeneration turbine rated at 87 MMBtu/hr in line with	40 CFR 60, Subpart KKKK
a heat recovery steam generator (HRSG) with a 46 MMBtu/hr duct burner.	40 CFR 63, Subpart DDDDD
	40 CFR 63, Subpart YYYY

E62. Condition E62-1 through E62-14 apply to source ~~37-1029-17~~, 37-0028-113

E62-1. The total heat input capacity for all units shall not exceed 180 million British thermal units per hour (MMBtu/hr).

This operating limitation is established pursuant to Rule 1200-03-06-.01(7) of the Tennessee Air ·Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee. The permittee has requested this limitation in order to avoid PSD review.

Compliance method: The permittee shall maintain a log of the fuel used and the total hours of operation of this source (~~37-1029-17~~, 37-0028-113) on a monthly basis. This information shall be used to determine the maximum heat input of the source on an hourly average basis (based on a conversion factor of 1,020 Btu/ft3 for natural gas). This log must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. The monthly log shall be kept in the following format, or a format which readily provides the same required information. This log must be retained for a period of not less than five (5) years. Maintenance of this log fulfills the requirements of 40 CFR §60.48c(g)(2) and §60.48c(i).

Month	**Natural Gas Usage (ft^3)**	**Hours Operated**	**Heat Input (MMBtu/hr)**

E62-2. The total amount of steam used by sources ~~37-1029-16~~, 37-0028-112, and ~~37-1029-20~~, 37-0028-114 shall not exceed the total amount of steam generated by this source (~~37-1029-17~~, 37-0028-113), on an annual basis.

This operating limitation is established pursuant to Rule 1200-03-06-.01(7) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee. The permittee has requested this limitation in order to avoid PSD review.

Compliance method: The permittee shall determine the amount of steam (in pounds) generated by source (~~37-1029-17~~, 37-0028-113) on a 12-month annual basis. This amount shall be compared to the amount of steam used by sources ~~37-1029-16~~, 37-0028-112,and ~~37-1029-20~~, 37-0028-114. A 12-month log updated monthly of the steam used by these sources shall be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. The monthly log shall be kept in the following format, or a similar format which readily provides the same information. This log shall be retained for a period of not less than five (5) years.

Month	Amount of Steam Used (pounds)		Total Steam (pounds)		Annual Difference 12-months Generated – 12-months Used (must be >0)
	~~37-1029-16,~~ 37-0028-112	~~37-1029-20~~, 37-0028-114	Used	Generated by ~~37-1029-17~~, 37-0028-113	

E62-3. Natural gas only shall be used as fuel for this source. TAPCR 1200-03-09-.01(l)(d) and the application dated August 15, 2013.

Compliance method: Compliance with these operational limitations shall be assured through maintenance of the log required by Condition E62-1.

E62-4. Particulate matter (PM) emitted from this source shall not exceed 2.2 pounds per hour, not to exceed 5.85 tons during any period of 12 consecutive months.

This emission limitation is established pursuant to Rule 1200-03-06-.01(7) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee.

Compliance Method: Compliance with this emission limit shall be assured by compliance with Conditions E62-1 and E62-3, and using the PM emission factor from AP-42, Chapter 1, Section 1.4, Table 1.4-2 for natural gas (7.6 pounds PM per 10^6 standard cubic feet).

E62-5. Sulfur dioxide (SO_2) emitted from this source shall not exceed 13.7 pounds per hour, not to exceed 2.4 tons during any period of 12 consecutive months.

This emission limitation is established pursuant to Rule 1200-03-14-.01(3) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee.

Compliance Method: Compliance with this emission limit shall be assured by compliance with Conditions E62-1 and E62-3, and using the SO_2 emission factor from AP-42, Chapter I, Section 1.4, ·Table 1.4-2 for natural gas (0.6 pounds SO_2 per 10^6 standard cubic feet).

E62-6. Nitrogen oxides (NO_x) emitted from this source shall not exceed 21.92 tons during any period of 12 consecutive months. TAPCR 1200-03-06-.03(2)

Compliance Method: Compliance with this emission limit shall be assured by compliance with Conditions E62-1 and E62-3, and using the NO_x emission factors established by one of the two alternative compliance scenarios identified in condition E62-7 of this permit.

E62-7. For the CHP unit only the NO_x emissions shall not exceed 25 ppm at 15 percent O_2 or 150 ng/J of useful output (1.2 lb/MWh).

Table 1 to Subpart KKKK of Part 60-Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines

Compliance Method: Compliance with this limit shall be monitored by one of the following alternative compliance methods as follows:

a) A NO_x CEMs shall be installed and operated in accordance with 40 CFR §60.4340(b) or
b) Stack testing shall be performed in accordance with 40 CFR §60.4340(a).

E62-8. The permittee has specified that the micro boilers are equipped with low-NO_x burners and flue gas recirculation. These boilers shall not operate unless the low-NO_x burners and flue gas recirculation are fully operational. Documentation from the manufacturer for these boilers which specifies that these features are present and which provides NO_x emission factors shall be maintained onsite and shall be made available to the Technical Secretary or his representative.

TAPCR 1200-03-06-.03(2)

E62-9. Carbon monoxide (CO) emitted from this source shall not exceed 38.54 tons during any period of 12 consecutive months. TAPCR 1200-03-06-.03(2)

Compliance Method: Compliance with this emission limit shall be assured by compliance with Conditions E62-1 and E62-3, and using the CO emission factors from vendor supplied documents for the flue gas which contains 43.6 ppmv CO at 15 percent oxygen by volume.

E62-10. Volatile organic compounds (VOC) emitted from this source shall not exceed 4.23 tons during any period of 12 consecutive months.

TAPCR 1200-03-06-.03(2)

Compliance Method: Compliance with this emission limit shall be assured by compliance with Conditions E62-1 and E62-3, and using the VOC emission factor from AP-42, Chapter 1, Section 1.4, Table 1.4-2 for natural gas (5.5 pounds VOC per 10^6 standard cubic feet).

E62-11. Visible emissions from this source shall not exhibit greater than 20 percent (20%) opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent (27%) opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A.

40 CFR §60.43c (c) and 40 CFR §60.45c (a)(8)

Compliance Method: Compliance with this standard shall be determined by the procedures of the Division's Opacity Matrix dated June 18, 1996 and amended on September 11, 2013 (enclosed as Attachment 1).

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E62-12. The micro steam generating units are subject to 40 CFR 60, Subpart Dc and 40 CFR 63, Subpart DDDDD (see attachments 17 and 19).

E62-13. The cogeneration steam generating units are subject to 40 CFR 60, Subpart KKKK, 40 CFR 63 Subpart YYYY, and 40 CFR 63, Subpart DDDDD (see attachments 18, 20, and 21).

E62-14. Per the agreement letter dated August 14, 2013 from the permittee, the steam generating units will be considered started up once completed and the equipment is recognized to be able to make product. Prove out and full capacity operation should

be achieved within 180 days and the corresponding Area A unit, emission source 82-0018-41, should be permanently shut down. TAPCR 1200-03-09.

~~37-1029-20~~, 37-0028-114 **Source Description:** **G-8 Nitration Process**
Organics processing, support, and nitration equipment. Two (2) scrubbers used for pollution control.

E63. Condition E63-1 through E63-9 apply to source ~~37-1029-20~~, 37-0028-114

E63-1. The total amount of steam used by this source (~~37-1029-20~~, 37-0028-114) and source ~~37-1029-16~~, 37-0028-112 shall not exceed the total amount of steam generated by source ~~37-1029-17~~, 37-0028-113.

This operating limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee. The permittee has requested this limitation in order to avoid PSD review.

Compliance method: The permittee shall determine the amount of steam (in pounds) generated by source (~~37-1029-17~~, 37-0028-113) on a 12-month annual basis. This amount shall be compared to the amount of steam used by sources ~~37-1029-16,~~ 37-0028-112 and ~~37-1029-20~~, 37-0028-114,. A 12-month log updated monthly of the steam used by these sources shall be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. The monthly log shall be kept in the following format, or a similar format which readily provides the same information. This log shall be retained for a period of not less than five (5) years.

Month	Amount of Steam Used (pounds)		Total Steam (pounds)		Annual Difference 12-months Generated – 12-months Used (must be >0)
	~~37-1029-16,~~ 37-0028-112	~~37-1029-20~~, 37-0028-114	Used	Generated by ~~37-1029-17~~, 37-0028-113	

E63-2. Particulate matter (PM) emitted from each exhaust stack shall not exceed 0.02 grain per dry standard cubic foot (0.31 pound per hour total).

This emission limitation is established pursuant to Rule 1200-03-07-.04(1) of the Tennessee Air Pollution Control Regulations and the information contained in the permit application dated August 15, 2013, from the permittee.

E63-3. Nitrogen oxides (NOx) emitted from this source shall not exceed 10 tons during any period of 12 consecutive months.

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee. The permittee has requested this limit in order to avoid PSD review.

Compliance Method: Compliance with this emission limitation shall be assured by compliance with Condition E59-4 and through monitoring the operational-parameters established during the performance test described in Condition E59-5. Based on the results of the performance test, the permittee shall either establish an operational restriction (i.e. total batch limit) or develop an emission factor to calculate overall total NOx emissions for the source during any period of 12 consecutive months.

E63-4. The scrubbers must operate when the equipment controlled by the scrubbers is in operation. In the event a malfunction/failure of either scrubber occurs, the operation of the process serviced by that scrubber shall be regulated by Rule 1200-03-20 of the Tennessee Air Pollution Control Regulations.

E63-5. Within 180 days of startup of this source, the permittee shall perform an emissions performance test demonstrating the overall NOx control efficiency of each scrubber. At least thirty (30) days prior to the actual date of the testing, the permittee shall furnish the Technical Secretary with a testing protocol. To be considered as being acceptable, the protocol must describe exactly how the overall emissions control efficiency of each pollution control device will be demonstrated, specify all test methodologies to be employed, discuss the operational level of the source during the testing period, and specify the operational parameters that will be monitored continuously to demonstrate that the measured overall NOx control efficiencies are continuously maintained during operation of the source. Within 60 days of completion of each performance test, the permittee shall furnish the Technical Secretary with a written report of the test results. The report(s) shall include sufficient data to establish operating parameters to be used to demonstrate compliance.

If the emissions performance test on similar sources at this facility has already been performed, and approved by the Compliance Validation program, a performance test is not required for this source. The performance test data must include all required operational, parametric, and emissions information detailed in this condition.

TAPCR 1200-03-09-.03(8)

E63-6. At least thirty (30) days prior to conducting the performance test, the Technical Secretary shall be given notice of the test in order to afford him the opportunity to have an observer present. TAPCR 1200-03-09-.03(8)

E63-7. Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. All maintenance activities (including maintenance that is in process) shall be entered in the log no later than seven (7) days following the start of the maintenance activity. These records must be retained for a period of not less than five (5) years. TAPCR 1200-03-10-.02(2)(a)

E63-8. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from these sources shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures of the Division's Opacity Matrix dated June 18, 1996 and amended on September 11, 2013 (enclosed as Attachment 1).

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E63-9. Carbon Monoxide (CO) emitted from this source shall not exceed 13.8 tons during any period of 12 consecutive months.

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated August 14, 2013, from the permittee. The permittee has requested this limit in order to avoid PSD review.

Compliance Method: Compliance with this condition is based on engineering calculations. Within 180 days of startup of this source, the permittee shall perform an emissions performance evaluation to establish operating parameters or batch limitations, or develop emission factors to be used to assure compliance with requested emission limits.

~~37-1029-24~~, 37-0028-115	**Source Description:**	**Weak Acetic Acid Recovery Process -**
Two (2) evaporators, a stripping column, and a concentrator used to remove ammonium nitrate and other impurities from weak acetic acid		40 CFR 60, Subpart VVa 40 CFR 60, Subpart NNN

E64. Condition E64-1 through E64-5 apply to source ~~37-1029-24~~, 37-0028-115

E64-1. Volatile Organic Compounds (VOCs) emitted from this source shall not exceed 9.8 tons per year.

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated September 14, 2010, from the permittee. The permittee has requested this limit in order to avoid PSD review.

Compliance Method: Compliance with this emission limitation shall be assured by using the VOC emission factors developed during the performance tests required by Condition E63-2, and the calculation methods utilized in the construction permit application dated September 14, 2010.

E64-2. Within 180 days of startup of this source, the permittee shall conduct performance tests in accordance with 40 CFR 60.664 (Test Methods and Procedures for New Source Performance Standards, Subpart NNN). Scheduling of the performance tests, notification of the tests with testing protocols, and report submission shall be in accordance with 40 CFR 60.8 (Performance Tests for New Source Performance Standards, Subpart A).

E64-3. At least thirty (30) days prior to conducting the performance test, the Technical Secretary shall be given notice of the test in order to afford him the opportunity to have an observer present. TAPCR 1200-03-09-.03(8)

E64-4. Per 40 CFR 60, Subpart VVa- Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, the permittee shall establish a Leak Detection and Repair Program to minimize fugitive equipment leaks.

40 CFR 60, Subpart VVa

Compliance Method: Upon startup of this source, the permittee shall implement the alternative monitoring procedure- *Sensory Leak Inspection and Repair for Equipment in Acetic Acid and/or Acetic Anhydride Service,* as submitted to EPA on June 2, 2010, and approved by EPA on June 23, 2010 (see Attachments 12 and 13).

E64-5. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures of the Division's Opacity Matrix dated June 18, 1996 and amended September 12, 2005 (enclosed as Attachment 1).

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

~~**37-1029-25**~~**, 37-0028-116**	**Source Description:**	**Tanks 16A and 16B for the Weak Acetic Acid Recovery Process**
Wet Scrubber as Control		40 CFR 60, Subpart VVa 40 CFR 60, Subpart Kb

E65. Condition E65-1 through E65-6 apply to source ~~37-1029-25~~, 37-0028-116

E65-1. Volatile Organic Compounds (VOCs) emitted from this source shall not exceed 0.33 ton during any period of 12 consecutive months.

This emission limitation is established pursuant to Rule 1200-03-07-.07(2) of the Tennessee Air Pollution Control.

Compliance Method: Compliance with this emission limitation shall be assured by the calculation methods utilized in the construction permit application dated August 14, 2013.

E65-2. Per 40 CFR 60 Subpart Kb [Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984], the permittee will submit documentation with the construction start-up notification required by 40 CFR 60 Subpart A demonstrating the scrubber will achieve the required control efficiency during maximum loading conditions and describing the parameter or parameters to be monitored.

E65-3. Per 40 CFR 60, Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, the permittee shall establish a Leak Detection and Repair Program to minimize fugitive equipment leaks.

40 CFR 60, Subpart VVa

Compliance Method: Upon startup of this source, the permittee shall implement the alternative monitoring procedure- Sensory Leak Inspection and Repair for Equipment in Acetic Acid and/or Acetic Anhydride Service, as submitted to EPA on June 2, 2010, and approved by EPA on June 23, 2010 (see Attachments 12 and 13).

E65-4. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

Compliance Method: Compliance with this standard shall be determined by the procedures of the Division's Opacity Matrix dated June 18, 1996 and amended September 11, 2013 (enclosed as Attachment 1).

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E65-5. Routine maintenance, as required to maintain specified emission limits, shall be performed on all control devices for this source. Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the

Division. These records must be retained for a period of not less than five (5) years. All maintenance activities (including maintenance that is in-process) shall be entered in the log no later than seven (7) days following the start of the maintenance.

TAPCR 1200-03-07-.07(2) and TAPCR 1200-03-10-.02(2)(a)

E65-6. This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards.

Compliance Method: Compliance requirements with these standards are outlined in Attachment 22.

TAPCR 1200-03-09-.03(8)

37-0028-117 **Source Description:** Diesel Fuel-Fired Emergency Generators and Pumps
40 CFR 60, Subpart IIII as indicated
40 CFR 63, Subpart ZZZZ

E66. Condition E66-1 through E66-16 apply to Diesel Fuel-Fired Emergency Generators and Pumps subject to 40 CFR 63, Subpart ZZZZ

E66-1. The following existing emergency generator engines (reciprocating internal combustion engine (RICE)) constructed before June 12, 2006, are not subject to the requirements of 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR §60.4200). These existing emergency engines (RICE) located at a major source of HAP emissions are subject to the requirements of 40 CFR Part 63, Subpart ZZZZ and Subpart A, General Provisions 40 CFR §63.6590.

Type of Unit	Building	Fuel Type	Size (Hp)	Unit ID Number	Year Manufactured	Year Installed	NSPS, NESHAP, or IEU	Description
Generator Stationary	8A	Gas	372	HOL65617	N/A	1968	40 CFR 63, Subpart ZZZZ	Unit #1015 GENERATOR SET DED 312.5 KVA 480V 60CY, MOD 250 DWF-4 X R8 ONAN SN 0868038062, STATIONARY
Generator Stationary	26	Diesel	165	S/N356154 S/NCD6059T166964	1994	1995	40 CFR 63, Subpart ZZZZ	Unit 1046 Elec. Generator , Kohler Generator- Outside, South End of building
Generator Stationary	7A	Diesel	80(est)	HOL65619, S/N0868056412		1968	40 CFR 63, Subpart ZZZZ	Unit 1001 Emergency Generator Onan with Ford Engine 7A
Generator Stationary	159	Diesel	155	HOL89172, S/NB050746590	2/15/2005	2005	40 CFR 63, Subpart ZZZZ	Unit 573 Emergency generator for 159 behind 155. GENERATOR CUMMINS POWER MODEL # DGDA57004193 UNIT # 573
Generator Stationary	200	Diesel	450(est)	HOL 75792 S/N MJ3013520	N/A	1984	40 CFR 63, Subpart ZZZZ	Unit 1058 Emergency Generator on east side inside bottom floor near truck entry door
Generator Stationary	200	Diesel	900	HOL89173, S/NG7A00521	7/1/2006	2008	40 CFR 63, Subpart ZZZZ 40 CFR 60, Subpart IIII	Unit 574 CAT Emergency Generator on west side of steam plant
Generator Stationary	140	Diesel	145	S/N73084619	3/30/2010	2010	40 CFR 63, Subpart ZZZZ 40 CFR 60, Subpart IIII	Unit 576 Diesel Generator at Risk Mang Facility. GENERATOR MOD #QSB5-GSNR3 CUMMINS DIESEL SN 73084619 UNIT #576
Pump Stationary	A011	Diesel	180	HOL59740	N/A	1967	40 CFR 63, Subpart ZZZZ	ENGINE DIESEL 180 BHP @ 1600 RPM MOD 1600MT SN 16-08831 Unit 1003
Pump Stationary	203	Diesel	340	HOL68593	N/A	1970	40 CFR 63, Subpart ZZZZ	ENGINE DIESEL 340 HP CUMMINS SN 690904; #5 Unit 1016
Generator	41-A	Diesel	800	HOL75794, S/N23Z00571	N/A	1984	40 CFR 63, Subpart ZZZZ	Unit 1056 Generator for NG package boilers. GENERATOR SET 500KW 480V FDR 8172GGW MOD608 MARATHON ELEC SN MK3015408 CATERPILLAR ENG SN 23Z

Air Compressor	231	Diesel	300	HOL75624	N/A	1980	40 CFR 63, Subpart ZZZZ	COMPRESSOR AIR ROTARY TRAILER MOUNTED DED INGERSOLL-RAND SN 158737 UNI RN WS022A 250 CFM UNIT 911
Air Compressor	200	Diesel	300	N/A	N/A	1980	40 CFR 63, Subpart ZZZZ	COMPRESSOR AIR ROTARY TRAILER MOUNTED DED INGERSOLL-RAND UNIT 913
Air Compressor	259	Diesel	300	N/A	N/A	1980	40 CFR 63, Subpart ZZZZ	COMPRESSOR AIR ROTARY TRAILER MOUNTED DED INGERSOLL-RAND UNIT 908
Air Compressor	41-A	Diesel	300	N/A	N/A	1980	40 CFR 63, Subpart ZZZZ	COMPRESSOR AIR ROTARY TRAILER MOUNTED DED INGERSOLL-RAND UNIT 909

TAPCR 1200-03-09-.02(6) and the application dated December 13, 2013

E66-2. Operating time for maintenance checks and readiness testing shall not exceed 100 hours per calendar year. TAPCR 1200-03-09-.03(8) and 40 CFR §63.6640(f)

E66-3. Only diesel fuel that meets the requirements of Condition **E66-15** shall be used as fuel for this source.
TAPCR 1200-03-09-.02(6) and the application dated December 13, 2013.

E66-4. Particulate Matter (TSP) emitted from this source shall not exceed 0.60 lb per million Btu (1.8 lbs/hr) and (0.45 ton/yr). TAPCR 1200-03-06-.02(2)

Compliance with these emission limitations is based on compliance with Conditions E66-1 and E66-3 of this permit and AP-42, Table 3.4-1, Emission Factors for large stationary diesel and all stationary dual-fuel engines.

E66-5. Sulfur Dioxide (SO_2) emitted from this source shall not exceed 0.01 lb/hr (0.0036 ton/yr). TAPCR 1200-03-14-.03(5)

Compliance with these emission limitations is based on compliance with Conditions E66-1 and E66-3 of this permit and AP-42, Table 3.4-1, Emission Factors for large stationary diesel and all stationary dual-fuel engines.

E66-6. Carbon Monoxide (CO) emitted from this source shall not exceed 20.11 lbs/hr (5.03 tons/yr). TAPCR 1200-03-07-.07(2)

Compliance with these emission limitations is based on compliance with Conditions E66-1 and E66-3 of this permit and AP-42, Table 3.4-1, Emission Factors for large stationary diesel and all stationary dual-fuel engines.

E66-7. Nitrogen Oxides (NO_X) emitted from this source shall not exceed 16.23 lbs/hr (4.06 tons/yr). TAPCR 1200-03-07-.07(2)

Compliance with these emission limitations is based on compliance with Conditions E66-1 and E66-3 of this permit and AP-42, Table 3.4-1, Emission Factors for large stationary diesel and all stationary dual-fuel engines.

E66-8. Volatile Organic Compounds (VOC) emitted from this source shall not exceed 2.29 lbs/hr (0.57 tons/yr). TAPCR 1200-03-07-.07(2)

Compliance with these emission limitations is based on compliance with Conditions E66-1 and E66-3 of this permit and AP-42, Table 3.4-1, Emission Factors for large stationary diesel and all stationary dual-fuel engines.

E66-9. The emergency diesel generator engine allowable emissions were calculated using EPA's policy of 500 hours* per calendar year. *An EPA memorandum (dated September 6, 1995 from John Seitz, Director, Office of Air Quality Planning and Standards) regarding the calculation of potential to emit for emergency generator engine states the following: "The EPA believes that 500 hours is an appropriate default assumption for estimating the number of hours that an emergency generator engine could be expected to operate under worst-case conditions.

E66-10. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

E66-11. Pursuant to 40 CFR §63.6590(a)(1)(iii), this emission source is "an existing stationary RICE located at a major source of HAP emissions." These engines shall comply with the following requirements in this condition and Conditions E66-2 and E66-2, thru E66-17:

(a) Operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. 40 CFR §63.6605(b)

(b) Comply with the following management practice requirements: 40 CFR §63.6603(a)-Table 2c-Item 4 as shown in table below:

For each	Meet the following requirements
Emergency CI[2]	Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]
	Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
	Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Notes:

[1]Sources have the option to utilize an oil analysis program as described in 40 CFR §63.6625(i) in order to extend the specified oil change requirement.

[2]If an emergency generator engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Condition E66-11(b), or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Source must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

(c) Must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. 40 CFR §63.6625(h)

(d) Records of all required maintenance performed on the air pollution control and monitoring equipment.

Records shall be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. These records shall be retained for a period of not less than five (5) years.

(e) The General Provisions of 40 CFR 63 shall apply as indicated in Table 8 of 40 CFR 63 Subpart ZZZZ.

TAPCR 1200-03-09-.03(8) and 40 CFR §63.6590, 40 CFR §63.6603, 40 CFR §63.6605(b), 40 CFR §63.6655, Table 2c to Subpart ZZZZ

E66-12. The emergency generator engine shall be equipped with a non-resettable hour meter if one is not already installed. TAPCR 1200-03-09-.03(8) and 40 CFR §63.6625(f).

E66-13. The permittee must operate and maintain the emergency stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. 40 CFR §63.6625(e), 40 CFR §63.6640(a), Table 6, item 9.

E66-14. The permittee must keep records to show continuous compliance with each management practice requirement in condition E66-11(b) required by 40 CFR §63.6655(d)-Table 6-Item 9 by complying with the following:

i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions;
ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

E66-15. Pursuant to 40 CFR §63.6604(b) and 40 CFR §80.510(b), the permittee must use diesel fuel that meets the following per-gallon standards:

(a) Sulfur content of 15 ppm maximum.
(b) Cetane index or aromatic content, as follows:

(i) A minimum cetane index of 40; or
(ii) A maximum aromatic content of 35 volume percent.

The permittee shall maintain purchase receipts, vendor certifications, material safety data sheets, or other records to demonstrate that all fuel purchased for this source meets the requirements of this condition (any fuel labeled as ultra-low sulfur non-highway diesel fuel or ultra-low sulfur highway diesel fuel meets these requirements). These records shall be made available to the Technical Secretary for inspection upon request. These records must be maintained for a period of at least (5) years from the purchase date.

E66-16. The permittee shall keep a record of operating hours of the engine for each calendar year and document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation in a form (see example below) that shows compliance with Condition E66-2. All data must be entered in the log no later than thirty (30) days from the end of the month for which the data is required. The permittee shall retain this record at the source location for a period of not less than five (5) years and keep this record available for inspection by the Technical Secretary or their representative. TAPCR 1200-03-10-.02(2)(a). 40 CFR §63.6655(f)

YEARLY LOG: Source 37-0028-117 YEAR: _____

Date	Classification & Hours of Operation			Hours Per Year	
	Operation#	Classification of Operation (Maintenance/Readiness Testing/Power Failure)	Hours of Operation	Emergency Operation	Maintenance/Readiness Testing
	Example: #1	Maintenance	0.50 hr		
	Example: #2	Readiness Testing	1.0 hr		
	Example: #3	Power Failure	2.0 hr		
	Calendar Year Totals				

E66-17

. The permittee must keep records in a form suitable and readily available for expeditious review according to 40 CFR §63.10(b)(1)(b) & (c) listed below:

The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

40 CFR §63.6660(a),(b), & (c)

E66. Condition E66-18 through E66-28 apply to engines subject to 40 CFR 63, Subpart ZZZZ and 40 CFR 60, Subpart IIII

E66-18. The following Stationary reciprocating internal combustion engines are subject to regulation under 40 CFR part 63, subpart ZZZZ, NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES. The permittee shall meet the requirements of 40 CFR part 63, subpart ZZZZ, by meeting the requirements of 40 CFR part 60, subpart IIII. No further requirements apply for the emergency engine under 40 CFR part 63, subpart ZZZZ.

40 CFR §63.6590(c)

Type of Unit	Building	Fuel Type	Size (Hp)	Unit ID Number	Year Manufactured	Year Installed	NSPS, NESHAP, or IEU	Description
Generator Stationary	200	Diesel	900	HOL89173, S/NG7A00521	7/1/2006	2008	40 CFR 63, Subpart ZZZZ 40 CFR 60, Subpart IIII	Unit 574 CAT Emergency Generator on west side of steam plant
Generator Stationary	140	Diesel	145	S/N73084619	3/30/2010	2010	40 CFR 63, Subpart ZZZZ 40 CFR 60, Subpart IIII	Unit 576 Diesel Generator at Risk Mang Facility. GENERATOR MOD #QSB5-GSNR3 CUMMINS DIESEL SN 73084619 UNIT #576

E66-19. New (manufactured after April 1, 2006) stationary compression ignition engines are subject to regulations under 40 CFR Part 60, Subpart IIII, STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES including any and/or all applicable emission limitations, notifications, compliance options, records, reports, etc. including, but not limited to, the requirements in **Conditions E66-20 thru e66-27** that follow. The permittee's emergency use engine shall achieve compliance with **Conditions E66-20 thru E66-27** upon start-up.

40 CFR part 60 subpart IIII, TAPCR 1200-03-09-.03(8)

E66-20. The permittee of 2007 model year and later emergency stationary CI ICE that are not fire pump engines with a displacement of less than 10 liters per cylinder, a maximum engine power greater than or equal to 37 KW (50 HP), and a maximum engine power less than or equal to 2,237 KW (3,000 HP) must comply with the emission standards for the same model year and maximum engine power in 40 CFR §89.112 and 40 CFR §89.113 for all pollutants beginning in model year 2007. (See Attachment 1 of this permit)

Compliance with this requirement is assured by compliance with **Condition E66-24.**

40 CFR §60.4202(a)(2) and 40 CFR §60.4205(b)

E66-21. The permittee must operate and maintain the emergency stationary ICE and control device (if present) to achieve the emission standards as required in **Condition E66-20** over the entire life of the engine.

40 CFR §60.4206

E66-22. The permittee must use diesel fuel that meets the requirements of 40 CFR §60.4207(b) and 40 CFR §80.510(b) & (c). The diesel fuel used for this source is subject to the following per-gallon standards:

A sulfur content of 15 parts per million (ppm) maximum and cetane index or aromatic content, as follows: a minimum cetane index of 40; or a maximum aromatic content of 35 volume percent.

The permittee shall maintain purchase receipts, vendor certifications, material safety data sheets, or other records to demonstrate that all fuel purchased for this source meets the requirements of this condition (any fuel labeled as ultra-low sulfur non-highway diesel fuel or ultra-low sulfur highway diesel fuel meets these requirements). These records shall be made available to the Technical Secretary for inspection upon request. These records must be maintained for a period of at least (2) years from the purchase date.

TAPCR 1200-03-10-.02(2)(a)

E66-23. The permittee of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines must install a non-resettable hour meter prior to startup of the engine.
40 CFR §60.4209(a)

E66-24. The permittee must comply by purchasing an engine certified to the emission standards in **Condition E66-20** for the same model year and maximum engine power. The permittee must do all of the following, except as provided in **Condition E66-26**:

(a) Install and configure the engine according to the manufacturer's emission-related specifications;
(b) Operate and maintain the emergency stationary ICE and control device (if present) according to the manufacturer's emission-related written instructions;
(c) Change only those emission-related settings that are permitted by the manufacturer; and
(d) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply.

40 CFR §60.4211(a) and (c)

E66-25. The permittee must operate the emergency stationary ICE according to the requirements in (a) through (c) of this condition. In order for the engine to be considered an emergency stationary ICE under 40 CFR part 60 subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in (a) through (c) of this condition, is prohibited. If the permittee does not operate the engine according to the requirements in (a) through (c) of this condition, the engine will not be considered an emergency engine under 40 CFR part 60 subpart IIII and must meet all requirements for non-emergency engines.

(a) There is no time limit on the use of emergency stationary ICE in emergency situations.

(b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in (b)(i) through (iii) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by (c) of this condition counts as part of the 100 hours per calendar year allowed by (b).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Technical Secretary for approval of additional hours to be used for maintenance checks and readiness testing,

but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in (b) of this condition. Except as provided in (c)(i) of this condition, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following, (A) through (E), are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee.

40 CFR §60.4211(f)

E66-26. If the stationary ICE and control device (if present) is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the emission-related settings are changed in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance by the following:

for < 100 HP	for 100 – 500 HP	for > 500 HP

Keep a maintenance plan and records of conducted maintenance to demonstrate compliance and, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or changes the emission-related settings in a way that is not permitted by the manufacturer, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.	Keep a maintenance plan and records of conducted maintenance and, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after a change to emission-related settings in a way that is not permitted by the manufacturer.	Keep a maintenance plan and records of conducted maintenance and, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after a change to emission-related settings in a way that is not permitted by the manufacturer. Conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

40 CFR §60.4211(g)

E66-27. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the permittee is not required to submit an initial notification. Starting with the model years in table below, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time.

The permittee must comply with the labeling requirements in 40 CFR §60.4210(f) and the recordkeeping requirements in this condition for new emergency stationary CI ICE beginning in the following model years:

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

40 CFR §60.4214(b)

E66-28. If the emergency stationary CI ICE has a maximum engine power more than 100 HP and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in **Condition E66-25(b)(ii) and (iii)** or that operates for the purposes specified in **Condition E66-25(c),** the permittee must submit an annual report according to the following requirements in (a) through (c) of this condition.

(a) The report must contain the following information:

(i) Company name and address where the engine is located.
(ii) Date of the report and beginning and ending dates of the reporting period.
(iii) Engine site rating and model year.
(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
(v) Hours operated for the purposes specified in **Condition E66-25(b)(ii) and (iii),** including the date, start time, and end time for engine operation for the purposes specified in **Condition E66-25(b)(ii) and (iii).**
(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in **Condition E66-25(b)(ii) and (iii).**
(vii) Hours spent for operation for the purposes specified in **Condition E66-25(c),** including the date, start time, and end time for engine operation for the purposes specified in **Condition E66-25(c).** The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(b) The first annual report must cover the calendar year 2017 and must be submitted no later than March 31, 2017. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(c) The annual report must be submitted to the Technical Secretary at the following address:

Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Or by email to: Air.Pollution.Control@tn.gov

40 CFR §60.4214(d)

37-0028-118_ **Source Description:** Gasoline Storage and Dispensing
Maximum Monthly Throughput < 10k gal/month

E67. Condition E67-1 through E67-6 apply to source 37-0028-118

E67-1. The total stated maximum throughput of gasoline for this source is 119,988 gallons per calendar year. The total stated maximum monthly throughput of gasoline for this source is less than 10,000 gallons per month. As defined in 40 CFR §63.11132, monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each gasoline dispensing facility (GDF) during a month. Average monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12. The permittee shall maintain a log of the monthly gasoline throughput using the following log format or an alternative format which readily provides the same required information. The monthly throughput must be entered into the log no later than thirty (30) days from the last day of each month.

Pursuant to 40 CFR §63.11116(b), the permittee shall have records available within 24 hours of a request by the Technical Secretary or his representative, to document monthly throughput. Records required under 40 CFR §63.11111(e) shall be kept for a period of five years.

	Volume of gasoline loaded into, or dispensed from, all gasoline storage tanks during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks during the previous 364 days (gallons/365 days)	Average Monthly Throughput of Gasoline (gallons/month)
January		
February		
March		
Etc.		
December		

Calendar Year 20___	Throughput of Gasoline (gallons per calendar year)
Total for January 1 to December 31	

E67-2. Pursuant to 40 CFR §63.11111(b), this gasoline dispensing facility (GDF), which has a monthly throughput of less than 10,000 gallons of gasoline, shall comply with the requirements in 40 CFR §63.11116. Pursuant to 40 CFR §63.11111(c), if this GDF has a monthly throughput of 10,000 gallons of gasoline or more, then the permittee shall comply with the requirements of 40 CFR §63.11117. Pursuant to 40 CFR §63.11111(d), if this GDF has a monthly throughput of 100,000 gallons of gasoline or more, then the permittee shall comply with the requirements of 40 CFR §63.11118.

E67-3. Pursuant to 40 CFR §63.11115, the permittee shall, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Technical Secretary which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

E67-4. Pursuant

(a) Minimize gasoline spills;
(b) Clean up spills as expeditiously as practicable;
(c) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use (Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with this requirement);
(d) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

E67-5. Pursuant to TAPCR 1200-03-18-.24(1)(b)2, this facility, located in Sullivan County, which dispenses less than 10,000 gallons of gasoline per month, is subject only to the provisions of TAPCR 1200-03-18-.24(3)(a)1 and TAPCR 1200-03-18-.24(5)(b)2.

E67-6. Pursuant to TAPCR 1200-03-18-.24(3)(a)1, all gasoline storage vessels at this facility shall be loaded by submerged fill. ("Submerged fill" means the method of filling a delivery vessel or storage vessel where product enters within 5.9 inches of the bottom of the delivery or storage vessel. Bottom filling of delivery and storage vessels is included in this definition).

E67-7. Pursuant to TAPCR 1200-03-18-.24(5)(b)2, the owner or operator of the facility shall maintain records showing the quantity of gasoline dispensed each month at the facility.

END OF PERMIT NUMBER: 568188

ATTACHMENT 1

Opacity Matrix Decision Trees for Visible Emission Evaluation by TVEE Method 2 and EPA Method 9,

Dated June 18, 1996 and amended September 11, 2013

Decision Tree PM for Opacity for
Sources Subject to Rule 1200-03-05-.01
Utilizing TVEE Method 2

Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standard in Rule 1200-03-05-.01. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PMT required.

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing Tennessee Visible Emission Evaluation Method 2. The observer must be properly certified according to the criteria specified in EPA Method 9 to conduct TVEE Method 2 evaluations.

Typical Pollutants
Particulates, VOC, CO, SO_2, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

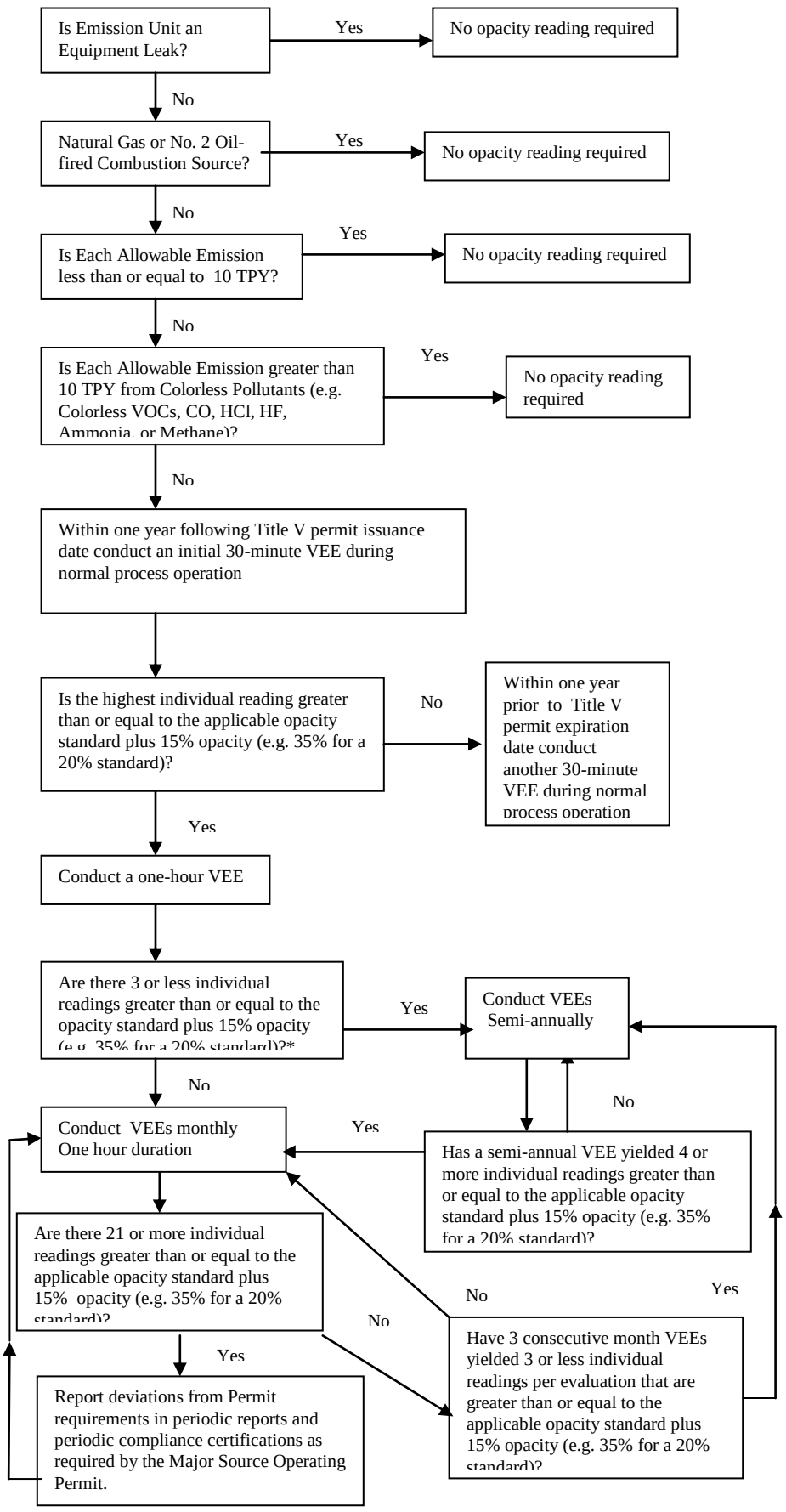
A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error
TVEE Method 2: The TAPCD declares non-compliance when 21 observations are read at the standard plus 15% opacity (e.g. 35% for a 20% standard).

*The rationale for this is the fact that Rule 1200-03-05-.01 allows for an exemption of 5 minutes (20 readings) per hour and up to 20 minutes (80 readings) per day. With 4 or more excessive individual readings per hour the possibility of a daily exceedance exists.

Note: A company could mutually agree to have all of its sources regulated by EPA Method 9. Caution: Agreement to use Method 9 could potentially place some sources in non-compliance with visible emission standards. Please be sure before you agree.

Dated June 18, 1996



Decision Tree PM for Opacity for Sources Utilizing EPA Method 9*

Notes:

PM = Periodic Monitoring required by 1200-3-9-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards in paragraph 1200-3-5-.01. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO_2, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

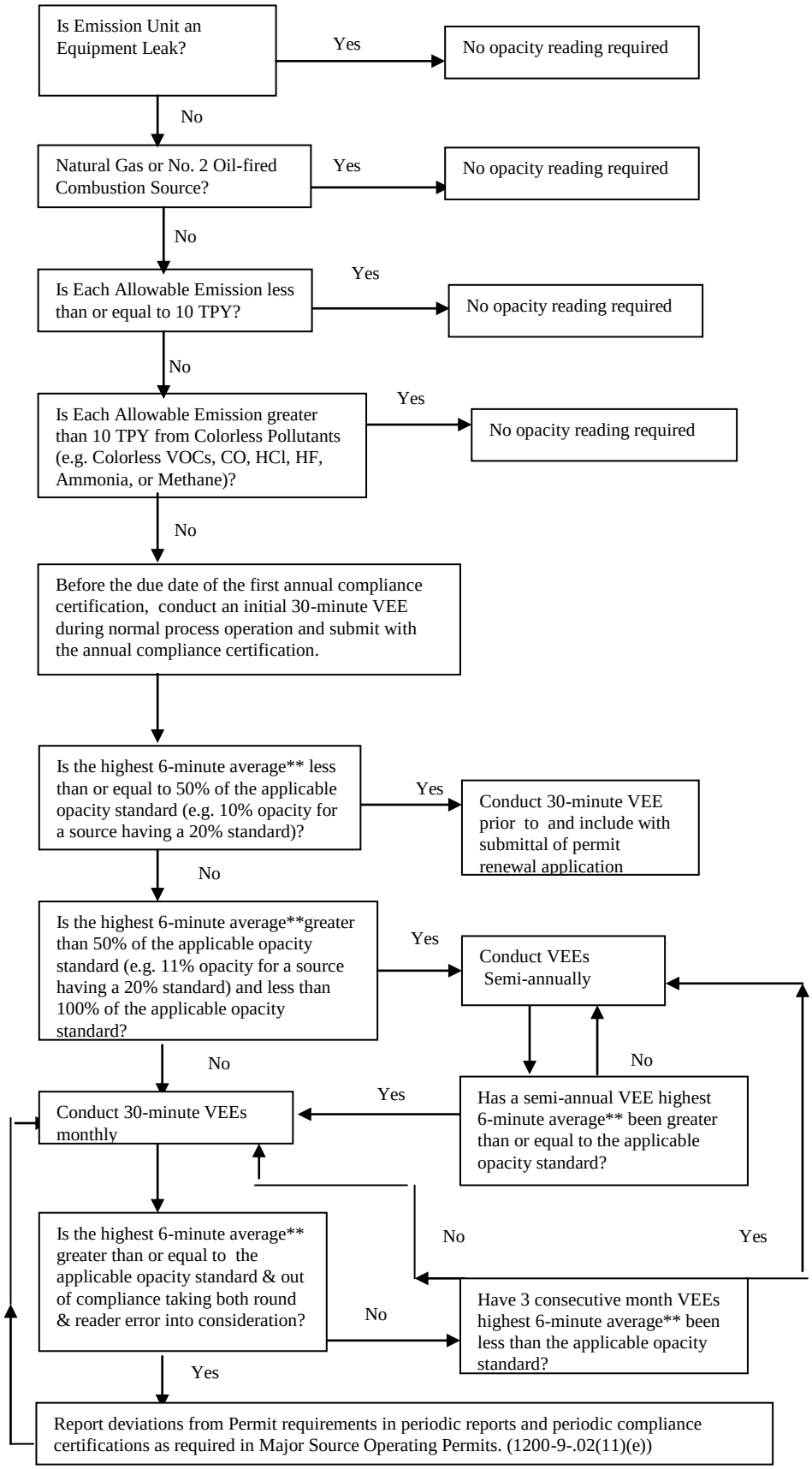
Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards: The TAPCD guidance is to declares non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards: EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996
Amended September 11, 2013



ATTACHMENT 2

AP-42 Fifth Edition Table 1.1-1 for Coal Combustion Emission Factors

ATTACHMENT 3

VOC Emissions/ Material Balance Analysis for Filtering, Washing and Weighing of RDX (E-Buildings – Sources 37-0028-17, -28, -77, -78; and ~~37-1028-35, -36, -37, -38, and -39~~, 37-0028-101, -102)

Filter Wash Process Emissions
E-Buildings

Building	Source Reference Number	lb VOC / hr	tons VOC / year
E-2	37-1028-35	N/A	2.4
E-3	37-0028-17	N/A	11.4
E-4	37-0028-28	N/A	10.4
E-5	37-0028-77	N/A	2.4
E-6	37-0028-78	N/A	11.4
E-7	37-1028-36	N/A	2.4
E-8	37-1028-37	3.0	10.5
E-9	37-1028-38	N/A	2.4
E-10	37-1028-39	5.9	10.5
		Total:	**63.8**

Note: Building E-1 has been removed from the table since it has been demolished.

Buildings E-3 and E-6
HDC calculations used August 1996 Source Testing for the scrubber and Tanks 4.0 for the storage tanks.

Days of Operation per year	350
Scrubber emission rate at building capacity, lb/hr	2.63
Scrubber Emissions, tons/year	11.0
Tank Emissions, tons/year	0.35
Total Emissions per Building, tons/year	**11.4**

2013 Evaluation of current operations:
Equations from the Pharmaceutical MACT (40 CFR 63 Subpart GGG) were used.
Emissions were based on the previously determined maximum number of batches/day per per building.
Emissions were based on operations of 365 days/year, 24 hours/day.
An scrubber efficiency of 80% was used in the calculations for conservatism.

For the scrubber calculations, the displacement equation (#11) was used for transferring the batches and adding wash water. The purge equation (#12) was used to account for the continuous draft pulled on the wash tanks by the scrubber fan.

For the vacuum system calculations, the displacement equation (#11) was used to account for emissions from the receivers.

Etanks 4.0.9d was used to check the emissions from the storage tanks.

Emissions, tons/year		
Scrubber	5.55	
Vacuum System	3.33	
Storage Tanks	0.58	
Total	**9.5**	< 11.4 tpy limit for E-3 and E-6, so the previously calculated limit is still valid

Building E-4

HDC calculations used May 1996 Source Testing for the scrubber and Tanks 4.0 for the storage tanks.

Days of Operation per year	350	
Scrubber emission rate at building capacity, lb/hr	2.4	
Scrubber Emissions, tons/year	10.1	
Tank Emissions, tons/year	0.35	
Total Emissions per Building, tons/year	**10.4**	> 9.5 calculated for E-3 and E-6 based on current operations, so the limit of 10.4 tpy for E-4 is still valid

Building E-8

HDC calculations were based on the Final Engineering Report HDC-28-76, Evaluation of Prototype Building E-1 which was for a continuous operation.

Days of Operation per year	350
Acetic Acid Rate from Scrubber, lb/hr	2.4
Scrubber Emissions, tons/year	10.1
Tank Emissions, tons/year	0.4
Total Emissions per Building, tons/year	**10.5**

Building E-8 is not currently in operation. If it was reactivated, it would likely be as a batch process like Buildings E-3 and E-6. Since the 2013 evaluation for E-3 and E-6 resulted in 9.5 tons/year, the limit of 10.5 tons/year is still valid for Building E-8.

Building E-10
HDC calculations were based on a preliminary material balance for E-10.

Days of Operation per year	350
Emissions from belt filters to scrubber, lb/hr	48
Scrubber Efficiency, %	96
Emissions from scrubber, lb/hr	1.92
Scrubber Emissions, tons/year	8.1
Tank Emissions, tons/year	0.4
Total Emissions per Building, tons/year	**8.5**

HDC had requested a limit of 10.5 tpy so Building E-10 would match Building E-8. Building E-10 is not currently in operation. If it was reactivated, it would be similar to Buildings E-3 an E-6, so the limit of 10.5 tons/year is still valid for Building E-10.

Buildings E-2, E-5, and E-9
HDC calculations were done using Tanks 4.0 based on the throughput of slurry coming to the buildings. The slurry was counted as all acetic acid. 5' diameter x 7' tank with 95°F for the operating temperature

Throughput, lb/hr of slurry	32,000
Annual throughput, gal/yr	33,841,727
Emissions from Tanks 4.0 tons/year	**2.4**

The buildings are currently not in operation. If they are re-activated, the emissions for the planned operations would be evaluated against the allowed 2.4 tons/year, so no changes are requested to the limits for Buildings E-2, E-5, and E-9 at this time.

Building E-7
HDC calculations for Building E-7 were the same as the ones for Buildings E-2, E-5, and E-9. Building E-7 is currently used to filter explosives from process wastewater before it is sent to the on-site industrial wastewater treatment facility. Evaluation of emissions for the current process resulted in a value well less than 2.4 tons/year as previously calculated, so the existing limit is acceptable.

ATTACHMENT 4

Calculation of VOC and Nitric Acid Emission from RDX Production by Nitration (D Buildings - Sources 37-0028-12, -13, -14, -15, -18, -19, -20, -21; and ~~37-1029-09~~, 37-0028-110)

Emission Calculations for Nitration Processes
Buildings D-1, D-2, D-3, D-5, D-7, D-8, D-9, & D-10

POINT A - Nitration Processes
Various stack tests have been conducted over the years
D-Building Nitration Process

Source Ref #	Building #	Rate (#'s/Minute)	Previously Listed Allowable Emisions or Permit Allowables VOC (tpy)	NOx (tpy)		Calculated Allowable Emissions VOC (tpy)	NOx (tpy)
37-0028-12	**D-1**	160	7.20	2.40		6.72	6.4
37-0028-18	D-2	60	5.50	1.80		12.768	2.4
37-0028-13	**D-3**	160	0.63	1.52		6.72	6.4
37-1029-09	D-5	75	87.20	9.64		3.15	3
37-0028-14	D-6	23	0.08	7.60		0.966	0.92
37-0028-15	D-7	40	7.20	2.40		8.512	1.6
37-0028-19	**D-8**	80	7.20	2.40		17.024	3.2
37-0028-20	D-9	40	7.20	2.40		8.512	1.6
37-0028-21	**D-10**	80	23.96	8.30		17.024	3.2
		Totals:	**146.17**	**38.46**	**Totals:**	**81.396**	**28.72**

Emission Factors were derrived from various stack tests that have been conducted.
These factors are:

NOx	**0.04**	tons / year per # of product per minute (all D sources)
VOC	**0.2128**	tons / year per # of product per minute for single scrubbers
	0.042	tons / year per # of product per minute for double scrubbers

POINT B: Acetic Anhydride Tanks
See Form APCV06
The Tanks 4.0 Program was used to estimate tank emissions

0.3 tons / year (each)

POINTS C, D, E, F, G, H, I & J (as applicable)
All are Insignificant Emission Units

Calculated Total Nitration Process Emissions (in tons per year) to verify below allowables.

Source Reference #	Building #	VOC's from Process	VOC's from Tanks	Total VOC Emissions (tpy)	Total NOx Emission (tpy)
37-0028-12	D-1	6.72	0.6	**7.3**	**6.4**
37-0028-18	D-2	12.768	0.6	**13.4**	**2.4**
37-0028-13	D-3	6.72	0.6	**7.3**	**6.4**
37-1029-09	D-5	3.15	0.6	**3.8**	**3.0**
37-0028-14	D-6	0.966	0.6	**1.6**	**0.9**
37-0028-15	D-7	8.512	0.6	**9.1**	**1.6**
37-0028-19	D-8	17.024	0.6	**17.6**	**3.2**
37-0028-20	D-9	8.512	0.6	**9.1**	**1.6**
37-0028-21	D-10	17.024	0.6	**17.6**	**3.2**
			Totals	**86.8**	**28.7**

No reductions in allowables requested.

ATTACHMENT 5

Calculation of Particulate Emissions from Recrystallization and Coating of RDX (37-0028-26)

ATTACHMENT 6

Calculation of VOC Emission from Recrystallization and Coating of RDX (G Buildings - Sources 37-0028-22, -23, -24, -25, -75, -76, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -89; ~~37-1028-90; and 37-1029-05, -06, and -14~~, 37-0028-103, -108, -109, -111)

Emission Calculations for **G-Building Recrystallization Processes**
G-Building Lacquer Coating Processes
G-Building Vacuum Coating Processes

		From previous Title V Permit Renewal Application		Adjustments for 2013 Title V Permit Renewal Application	
Source	Source #	pounds/hour	tons/year	pounds/hour	tons/year
Recrystallization					
G-1	37-0028-79	3.4	14.9	3.4	14.9
G-2	37-0028-22	N/A	4.75	N/A	4.75
G-3-1	37-0028-80	7	29	7	19.98
G-3-2	37-0028-81	N/A	2.4	N/A	2.4
G-4-1	37-0028-83	N/A	2.35	N/A	2.35
G-4-2	37-0028-84	N/A	2.35	N/A	2.35
G-5-1	37-0028-75	N/A		N/A	4.51
G-6-1	37-0028-86	N/A		N/A	4.51
G-6-2	37-0028-87	N/A	5	N/A	5
G-7-1	37-0028-23	18	9.9	18	9.9
G-8-1	37-0028-24	0.5	2.19	0.5	2.19
G-8-2	37-1029-05	12.9	56.5	12.9	56.5
G-8-3	37-1029-06	0.5	2.2	0.5	2.2
G-9	37-0028-25	N/A	4.75	N/A	4.75
		Total	**136.29**	**Total**	**136.29**
Lacquer Coating					
G-3-3	37-0028-82	1.3	5.7	1.3	1.29
G-4-3	37-0028-85	1.25	5.4	1.25	5.4
G-5-3	37-1028-90	N/A	N/A	N/A	4.41
G-6-3	37-0028-88	1.1	4.8	1.1	4.8
G-7-2	37-1029-14	2.1	8.8	2.1	8.8
		Total	**24.7**	**Total**	**24.7**
Vacuum Stills					
G-5-2	37-0028-76	0.8	3.36	0.8	3.36
G-6-4	37-0028-89	N/A	2.05	N/A	2.05
		Total	**5.41**	**Total**	**5.41**

For the 2013 renewal application, an evaluation of the existing processes was conducted. Past calculations by HDC were based on a combination of stack testing results and engineering estimates. Current operations were reviewed to determine the worst-case per batch emissions for the

recrystallization and coating processes and a maximum production rate. Pharmaceutical MACT (40 CFR 63 Subpart GGG) equations and engineering estimates were used to calculate emissions. The total VOCs for recrystallization, lacquer coating, and the vacuum stills are still valid for current operations. However, some of the processes that were historically conducted at Source G-3-1 are now done at Sources G-5-1 and G-6-1 and processes from Source G-3-3 are now done at Source G-5-3, so some of the VOC emissions have been shifted in the above table.

Building G-8 may be used for recrystallization and coating operations (G-8-1, G-8-2, G-8-3) or for ancillary nitration as described in Chapter 10.

ATTACHMENT 7

Calculation of VOC Emission from Lacquer Preparation (Building 150 - Sources 37-0028-92, -105

B-150 Lacquer Preparation and Tank Farm 149

Emission Source Number	Older Reference #	Primary Vessels
37-0028-92	B-150-1	CA-01, CB-01
37-0028-94	B-150-3	CE-01, CF-01, CL-01
37-1028-86	T-149	See APC 6 attachment
37-1028-98	B-150-4	CD-01, CD-02, CD-03, CD-04

HDC used the Tanks 4.0 program to calculate emissions from the process vessels.

2013 Evaluation of Emissions:

37-0028-92:

Reviewed the products currently made in the vessels and selected the one with the highest emissions.

Based the evaluation on a reasonable maximum production rate.

Used Pharmaceutical MACT (40 CFR 63 Subpart GGG) equations to calculate emissions.

Process Steps	Emissions (lbs/batch)	Emission Point
Charge Solvent	1.02	B
Charge Water	0.08	B
Charge Polymer	17.67	A
Heat Mixture	0.32	B
Transfer Mixture to Lacquer Wagon	1.88	Lacquer Wagon
Total	**20.97**	

Maximum batches per day per vessel	4	for 37-0028-92
Maximum daily lb/hr emission rate per vessel*	3.50	
Maximum batches per year	1460	
Maximum annual emissions, tpy	15.3	

*includes emissions from lacquer wagons

37-0028-94:

Reviewed the products currently made in the vessels and selected the one with the highest emissions.

Based the evaluation on a reasonable maximum production rate.

Used Pharmaceutical MACT (40 CFR 63 Subpart GGG) equations to calculate emissions.

Process Steps	Emissions (lbs/batch)	Emission Point
Charge Solvent	0.40	B
Transfer Part of Solvent to Solvent/Lacquer Wagon	0.12	Solvent / Lacquer Wagon
Charge Plasticizer	0.07	B
Charge Polymer	0.02	B
Heat Mixture	0.27	B
Transfer Mixture to Lacquer Wagon	0.69	Lacquer Wagon
Total	**1.57**	

Maximum batches per day per vessel	3	for 37-0028-94
Maximum daily lb/hr emission rate per vessel*	0.20	
Maximum batches per year	1643	
Maximum annual emissions, tpy	1.29	

*includes emissions from lacquer wagons

37-1028-98

Reviewed the products currently made in the vessels and selected the one with the highest emissions.

Based the evaluation on 5-8 times the production rate for the last few years.

Used Pharmaceutical MACT calculations.

Process Steps	Emissions (lbs/batch)	Emission Point
Charge Solvent	0.19	B
Charge Polymer	4.49	A
Charge Plasticizer	0.03	B
Heat Mixture	0.79	B
Charge Oil	0.06	B

Transfer Mixture to Lacquer Wagon	0.4	Lacquer Wagon
Total	**5.96**	

Maximum batches per day per vessel	2
Maximum daily lb/hr emission rate per vessel*	0.50
Maximum batches per year	1460
Maximum annual emissions, tpy	4.35

for 37-1028-98

*includes emissions from lacquer wagons

37-1028-86

The previous basis for the tank calculations was reviewed and no changes were needed.
Emissions from tanks were calculated to be 6256 lbs/yr (3.13 tpy)

Totals for Building 150 and Tank Farm 149:

37-0028-92	15.3
37-0028-94	1.29
37-1028-86	3.13
37-1028-98	4.35
Total	**24.07**

< 36.3 tpy, no change requested to limits for these sources

ATTACHMENT 8

Calculation of Carbon Monoxide Emission from Plasma Arc Cutting Machine (~~37-1029-03~~, 37-0028-107)

ATTACHMENT 9

Calculation of Particulate Emissions from Building 224B Lime Silo (37-0028-98)

Calculations for Inputs and Emissions					
Building 224B					
Lime Storage and Slurrying Operation					
Reference #	**Unit**				
37-0028-98	Baghouse for silo				
Current Limits	**100 Hours/Yr**	**2.5 lbs/hr**			
	Maximum Allowable	**((2.5) x (100))/2000**	**0.125**	**Tons/Yr PM**	
Verification:	(1) Maximum Historical Demand for lime is approximately 1.35 M lb/yr				
	(2) Truck unloading rate = two hours for 50,000 lb load, or 25,000 lb/hr				
	(3) Vendor specification for <4 µ particles = 0.01% escaping particles				
		Particulate loading,	**Emissions,**		
Contaminant	**Efficiency**	**lb/yr**	**lb/yr**	**TPY**	
PM	99.99%	1,350,000	135	**0.07**	

ATTACHMENT 10

AP-42 Fifth Edition Tables for Fuel Oil Combustion Emission Factors Revised July, 1998

Permit Number: 568188
No. of pages: 3

Expiration Date:

Table 1.3-1. CRITERIA POLLUTANT EMISSION FACTORS FOR FUEL OIL COMBUSTION[a]

Firing Configuration (SCC)[a]	SO_2[b]		SO_3[c]		NO_x[d]		CO[e]		Filterable PM[f]	
	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING
Boilers > 100 Million Btu/hr										
No. 6 oil fired, normal firing (1-01-004-01), (1-02-004-01), (1-03-004-01)	157S	A	5.7S	C	47	A	5	A	9.19(S)+3.22	A
No. 6 oil fired, normal firing, low NO_x burner (1-01-004-01), (1-02-004-01)	157S	A	5.7S	C	40	B	5	A	9.19(S)+3.22	A
No. 6 oil fired, tangential firing, (1-01-004-04)	157S	A	5.7S	C	32	A	5	A	9.19(S)+3.22	A
No. 6 oil fired, tangential firing, low NO_x burner (1-01-004-04)	157S	A	5.7S	C	26	E	5	A	9.19(S)+3.22	A
No. 5 oil fired, normal firing (1-01-004-05), (1-02-004-04)	157S	A	5.7S	C	47	B	5	A	10	B
No. 5 oil fired, tangential firing (1-01-004-06)	157S	A	5.7S	C	32	B	5	A	10	B
No. 4 oil fired, normal firing (1-01-005-04), (1-02-005-04)	150S	A	5.7S	C	47	B	5	A	7	B
No. 4 oil fired, tangential firing (1-01-005-05)	150S	A	5.7S	C	32	B	5	A	7	B

Firing Configuration (SCC)[a]	SO_2[b]		SO_3[c]		NO_x[d]		CO[e]		Filterable PM[f]	
	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING
No. 2 oil fired (1-01-005-01), (1-02-005-01), (1-03-005-01)	157S	A	5.7S	C	24	D	5	A	2	A
No.2 oil fired, LNB/FGR, (1-01-005-01), (1-02-005-01), (1-03-005-01)	157S	A	5.7S	A	10	D	5	A	2	A

Table 1.3-1. (cont.)

Firing Configuration (SCC)[a]	SO_2[b]		SO_3[c]		NO_x[d]		CO[e]		Filterable PM[f]	
	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING
Boilers < 100 Million Btu/hr										
No. 6 oil fired (1-02-004-02/03) (1-03-004-02/03)	157S	A	2S	A	55	A	5	A	10	B
No. 5 oil fired (1-03-004-04)	157S	A	2S	A	55	A	5	A	9.19(S)+3.22	A
No. 4 oil fired (1-03-005-04)	150S	A	2S	A	20	A	5	A	7	B
Distillate oil fired (1-02-005-02/03) (1-03-005-02/03)	142S	A	2S	A	20	A	5	A	2	A
Residential furnace (A2104004/A2104011)	142S	A	2S	A	18	A	5	A	0.4[g]	B

[a] To convert from $lb/10^3$ gal to $kg/10^3$ L, multiply by 0.120. SCC = Source Classification Code.

[b] References 1-2,6-9,14,56-60. S indicates that the weight % of sulfur in the oil should be multiplied by the value given. For example, if the fuel is 1% sulfur, then S = 1.

[c] References 1-2,6-8,16,57-60. S indicates that the weight % of sulfur in the oil should be multiplied by the value given. For example, if the fuel is 1% sulfur, then S = 1.

[d] References 6-7,15,19,22,56-62. Expressed as NO_2. Test results indicate that at least 95% by weight of NO_x is NO for all boiler types except residential furnaces, where about 75% is NO. For utility vertical fired boilers use 105 $lb/10^3$ gal at full load and normal (>15%) excess air. Nitrogen oxides emissions from residual oil combustion in industrial and commercial boilers are related to fuel nitrogen content, estimated by the following empirical relationship: lb NO_2 /10^3 gal = 20.54 + 104.39(N), where N is the weight % of nitrogen in the oil. For example, if the fuel is 1% nitrogen, then N = 1.

[e] References 6-8,14,17-19,56-61. CO emissions may increase by factors of 10 to 100 if the unit is improperly operated or not well maintained.

[f] References 6-8,10,13-15,56-60,62-63. Filterable PM is that particulate collected on or prior to the filter of an EPA Method 5 (or equivalent) sampling train. Particulate emission factors for residual oil combustion are, on average, a function of fuel oil sulfur content where S is the weight % of sulfur in oil. For example, if fuel oil is 1% sulfur, then S = 1.

[g] Based on data from new burner designs. Pre-1970's burner designs may emit filterable PM as high as 3.0 $lb/10^3$ gal.

ATTACHMENT 11

New Source Performance Standards – 40 CFR Part 60

Specific Applicability Determinations Acetic Acid Concentration and Acetic Anhydride Production (Source Source ~~37-1029-16~~, 37-0028-112)

Identification	Category	Rule Citation from 40 CFR 60.
Subpart A – General Provisions		
Entire Source	Notification, monitoring, recordkeeping, and reporting.	7, 13, 19
Vent H	Performance tests.	8
Vents B, C, D, E, H	Opacity standards.	11
Vent H	Flare requirements.	18(b) through 18(f)
Subpart Kb – Storage Vessels		
	Storage Vessels storing a VOL having a maximum true vapor pressure less than 76.7 kPa and must meet standards.	112b(a)
	Storage Vessels storing a VOL having a maximum true vapor pressure equal to or greater than 76.7 kPa and must meet standards.	112b(b)
	Storage Vessels that are not required to meet standards.	110b
	Monitoring, recordkeeping, and reporting.	115b, 116b
Subpart VVa – Equipment Leaks		
Equipment "in VOC Service"	Work practice standards for pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, etc.	482-1a through 482-11a, 483-1a through 483-2a
Equipment "in acetic acid and/or acetic anhydride service"	Alternative monitoring for equipment in acetic acid and/or acetic anhydride service (letter from Ms. Carol Kemker, EPA Region 4, to Mr. Barry Stephens, TDEC, dated June 23, 2010).	N/A
VVa subject points as applicable	Monitoring, recordkeeping, and reporting.	486a, 487a
Subpart NNN – Distillation		
Anhydride Refining Still Systems*	TRE less than or equal to 1.0 (Reduce TOC by 98% or to 20 ppmv).	662(a)
Anhydride Refining Still Systems*	TRE less than or equal to 1.0 (Combust in a flare).	662(b)
	TRE greater than 1.0 but less than or equal to 8.0.	662(c)
Acetic Anhydride Sludge Recovery System	TRE greater than 8.0.	660(c)(4)
	Batch Operation Exemption.	660(c)(3)
Azeotropic Column Systems, Solvent Still System, Acetic Acid Sludge Recovery System	Low Flow Exemption.	660(c)(6)
	Design Capacity Exemption.	660(c)(5)
NNN subject points as applicable	Monitoring, recordkeeping, and reporting.	663, 665
Anhydride Refining Still Systems	Alternative monitoring approved per letter from Ms. Carol Kemker, EPA Region 4, to Barry Stephens, TDAPC, December 7, 2012: waiver of requirement for process heater performance test, waiver of requirement for firebox temperature monitoring, and use of continuous valve position monitoring for process vent gases.	13(i)
Subpart RRR – Reactors		
Acid #1 and Acid #2 Scrubber Vents, Furnace Condensate Drain Tank Vent**	TRE less than or equal to 1.0 (Reduce TOC by 98% or to 20 ppmv).	702(a)
Acid #1 and Acid #2 Scrubber Vents, Furnace Condensate Drain Tank Vent**	TRE less than or equal to 1.0 (Combust in a flare).	702(b)
	TRE greater than 1.0 but less than or equal to 8.0.	702(c)
	TRE greater than 8.0.	700(c)(2)
	Batch Operation Exemption.	700(c)(1)
	Low Flow Exemption.	700(c)(4)
	Design Capacity Exemption.	700(c)(3)
	Low Concentration Exemption.	700(c)(8)
	Routed to distillation unit subject to subpart NNN except for a pressure relief valve.	700(c)(5)
RRR subject points as applicable	Monitoring, recordkeeping, and reporting.	703, 705

* The source may comply using either a boiler (§60.662(a)) or a flare (§60.662(b)). By issuance of construction permit #963968P, the source has fulfilled the notification requirement found in §60.665(a) to use an alternate provision of §60.662.

** The source may comply using either a boiler (§60.702(a)) or a flare (§60.702(b)). By issuance of construction permit #963968P, the source has fulfilled the notification requirement found in §60.705(a) to use an alternate provision of §60.702.

ATTACHMENT 12

New Source Performance Standards (NSPS) Subpart VVa "Alternative Monitoring Request

BAE SYSTEMS

ORDNANCE SYSTEMS INC.
4509 West Stone Drive
Kingsport, Tennessee 37660-9982
Telephone (423) 578-6010
Fax (423) 578-6054

In Reply Reference 2302RO

June 2, 2010

Keith Goff
Air, Pesticides and Toxics Management Division, Region 4
Environmental Protection Agency
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960

Dear Mr. Goff:

Please find enclosed an application for approval of alternative monitoring procedures submitted by BAE Systems Ordnance Systems, Inc. (OSI), the operating contractor for Holston Army Ammunition Plant (HSAAP), pursuant to the provisions of 40 CFR 60.13(i).

Approval of this application would establish alternative monitoring procedures to requirements found in 40 CFR 60 Subpart VVa that apply to equipment in acetic acid and/or acetic anhydride service at HSAAP in Kingsport, Tennessee. This request is similar to one approved by EPA Region 4 March 30, 2005 for Eastman Chemical Company in Kingsport, Tennessee.

If there are any questions concerning this application, please contact Amy Crawford at (423)578-6417 or amy.crawford@baesystems.com.

Respectfully,

BAE SYSTEMS Ordnance Systems Inc.

T. D. Hayes
Director, Manufacturing and Facilities Support

Reviewed by HSAAP Environmental Staff

ISO 9001:2008
QMI SAI GLOBAL
NSF-ISR

BAE Systems Ordnance Systems, Inc.
Application for Alternative Monitoring Procedures
For
Certain New Source Performance Standards
Leak Detection and Repair Program
For Equipment in Acetic Acid and/or Acetic Anhydride Service

Background

The Holston Army Ammunition Plant (HSAAP) was constructed in 1942 by the United States Army for the manufacture of Research Department Explosives (RDX) which was crucial for a victory in World War II. Tennessee Eastman was chosen as the operating contractor for their expertise in converting weak acetic acid to glacial acetic acid and acetic anhydride, both of which are essential to the manufacture of RDX. For this reason, the acetic acid and acetic anhydride processes were sited on a 112-acre piece of property (identified as Area A) immediately adjacent to the Tennessee Eastman facility in Kingsport, Tennessee (Sullivan County) to ensure this process remained proprietary to the company. The remainder of the 6000-acre high explosives manufacturing facility was constructed in Hawkins County, Tennessee (identified as Area B), approximately 7 miles from Area A. The two areas are connected by rail and pipeline through an interplant corridor. In 1999, BAE Systems Ordnance Systems, Inc. (OSI) became the operating contractor for this government-owned contractor-operated (GOCO) facility.

OSI and the Army determined that extensive modernization would be required for continued reliable operation of the Area A facility. OSI examined refurbishing Area A through a significant investment to mitigate infrastructure deficiencies, including upgrading and repairing railroad bridges, modernizing azeo still capacity, replacing the acetic anhydride refining still, updating the water distribution and storage tank capacities, and refurbishing six ketene furnaces. Additionally, with the interplant pipe/rail corridor, the safety, environmental, and security risks are notable. The corridor crosses the Holston River three times and passes through a densely populated residential neighborhood.

The HSAAP facility was originally designed to operate in support of major military conflicts where large volumes of high explosives were used as was the case during World War II and Vietnam. Today's military no longer requires these large volumes of product, but OSI and the Army must ensure that adequate capabilities remain in place. Today's ammunition also must be more versatile while continuously striving to be safer and safer. OSI prides itself on providing the US Armed Services with a product that meets or exceeds our customer's expectations.

With these product demands in mind, the Army and OSI recognized the Area A facility with an infrastructure more than sixty years old is dramatically oversized for future needs. OSI evaluated relocating the operations from Area A to Area B through designing and building a state-of-the-art facility. This option has the following benefits:

- Integrate operations with existing process control systems
- Improve efficiency with current technology

- Concentrate security requirements to Area B only
- Reduce energy needs and energy costs by approximately 28%
- Reduce chemical usage
- Reduce environmental footprint
- Allow utilization of existing Area B infrastructure by using stream from the existing coal-fired steam plant and by using reliable power and water at Area B
- Eliminate interplant corridor safety, environmental, and security risks

OSI and the Army chose the option to relocate operations from Area A to Area B. The new Area B operations will include acetic anhydride and concentrated acetic acid production. A separate but related modernization project involves the installation of new equipment for the recovery of weak acetic acid. This operation is currently done in an existing building at Area B that is also aging. It has been determined the new equipment to be installed at Area B will be subject to New Source Performance Standards (NSPS) Subpart VVa, "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006".

NSPS Subpart VVa requires a leak detection and repair (LDAR) program for pumps, valves, and connectors in volatile organic chemical (VOC) service per 40 CFR Sections 60.482-2a, 60.482-4a, 60.482-7a, 60.482-8a, and 60.482-11a along with the applicable recordkeeping and reporting requirements of Sections 60.486a and 60.487a. These provisions require leak detection for pumps in light liquid service and valves in gas/vapor or light liquid service to be done using an instrument known as Method 21 (see Section 60.485a) to detect VOC. Section 60.482-11a for connectors in gas/vapor and light liquid service also requires Method 21 for leak detection but is currently under a stay per 60.480a(f)(2)(iii). Records of all individual equipment components are required and leaking percentages are required to be calculated and reported, so the required monitoring frequency can be determined. Method 21 is also required to verify pressure relief devices in gas/vapor service are not leaking after a pressure release; to verify a pump, valve, or connector in heavy liquid service is leaking after evidence was found by sensory methods; to verify a pressure relief device in light liquid or heavy liquid service is leaking after evidence was found by sensory methods; and to verify the successful leak repair of leaking equipment. Subpart VVa also requires weekly visual inspections of pumps and subsequent repair of any pump seals found dripping.

OSI proposes to implement a program using sensory (sight, sound, smell) inspections for equipment in acetic acid and/or acetic anhydride service similar to the alternative procedures approved by EPA Region 4 for Eastman Chemical Company on March 30, 2005. The approval of that request was based on the physical properties of acetic acid and acetic anhydride and Eastman's record of identifying leaks without the aid of a Method 21 analyzer.

Therefore, OSI requests the Administrator approve this application for approval of an alternative monitoring approach pursuant to the provisions of 40 CFR Section 60.13(i).

Proposed Alternative Monitoring Procedure

OSI proposes as an alternative to the work practices required by 40 CFR Sections 60.482-2a, 60.482-4a, 60.482-7a, 60.482-8a, and 60.482-11a, that all regulated equipment subject to NSPS Subpart VVa in "acetic acid and/or acetic anhydride service" at HSAAP comply with a leak detection and repair program that identifies leaks and verifies successful repairs using sensory (sight, sound, smell) methods. For equipment to be classified in "acetic acid and/or acetic anhydride service", acetic acid and/or acetic anhydride will be at least 50 weight percent of the VOCs in the mixture contained by the equipment. The proposed alternative monitoring procedure is included as Attachment 1. OSI requests approval of this procedure as an alternative to the procedures required by 40 CFR Sections 60.482-2a, 60.482-4a, 60.482-7a, 60.482-8a, and 60.482-11a and the related recordkeeping and reporting requirements of Sections 60.486a and 60.487a.

Justification

Region 4 has approved a similar request by Eastman Chemical Company on March 30, 2005 for equipment in acetic acid and/or acetic anhydride service. Also, Region 4 has approved 3 similar requests for equipment in acetic acid service, 2 from Eastman Chemical Company and 1 from DuPont Engineering Polymers. Monitoring results provided by Eastman showed the sensory method approach would provide an equivalent or higher level of emission control than Method 21. The physical properties of acetic acid and acetic anhydride allow easy sensory detection of leaks. These properties include low odor thresholds (acetic acid: 0.48 ppm, acetic anhydride: 0.117 ppm), high boiling points (acetic acid: 118°C, acetic anhydride: 139°C), and high corrosivity. The low odor thresholds allow personnel to identify and locate leaks by smell while the high boiling points mean many of the leaks show up as drip leaks that can be located by sight. With the high corrosivity of both chemicals, liquid drips may cause staining or rusting of metal components which provides an additional visual sign for personnel to use to identify and locate leaks.

Attachment 1

Sensory Leak Inspection and Repair
for
Equipment in Acetic Acid and/or Acetic Anhydride Service

1. Definitions
    a. *In Acetic Acid and/or Acetic Anhydride Service* means the piece of equipment contains or contacts a mixture where acetic acid and/or acetic anhydride are at least 50 weight percent of the volatile organic compounds (VOCs) in the mixture.
    b. *In Gas/Vapor Service* means the piece of equipment contains or contacts a process fluid that is in the gaseous state at operating conditions.
    c. *In Light Liquid Service* means the piece of equipment contains or contacts a liquid where the vapor pressure of one or more of the organic components is greater than 0.3 kPa (0.044 psia) at 20°C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa (0.044 psia) at 20°C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.
    d. *In Heavy Liquid Service* means the piece of equipment is not in gas/vapor or light liquid service.
    e. *In Vacuum Service* means the equipment is operating at an internal pressure which is at least 5 kPa (0.7 psia) below ambient pressure.
    f. *In VOC Service* means the piece of equipment contains or contacts a process fluid that is at least 10 percent volatile organic compounds (VOC) by weight.
2. Schedule for Monitoring
    a. Pumps shall be inspected weekly.
    b. Valves shall be inspected monthly for 2 calendar months following initial startup. If the leak rate is less than 2%, the valves shall then be inspected once per calendar quarter.
    c. Connectors shall be inspected on the same frequency as valves.
    d. Pressure relief devices in gas/vapor service shall be inspected within the first month following initial startup and within 5 calendar days after a pressure release. A pressure relief device that is equipped with an upstream rupture disk is exempt from this inspection.
3. A leak inspection of all equipment in VOC service that is not "in heavy liquid service" or is not "in vacuum service" shall be performed according to the schedule in paragraph 2. For this inspection, detection methods incorporating sight (e.g. looking for drips), sound (e.g. listening for hissing sounds indicative of a leak), or smell (e.g. detecting strong odors traceable to piping leaks) shall be used as appropriate. "Equipment" includes piping, pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, and connectors. Equipment that is covered by insulation or obstructed from sight when standing on existing floors or walkways is exempt from this inspection. Equipment that is in VOC service less than 300 hours/year is exempt from this inspection.
4. When a leak is detected, an initial attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be

completed within 15 calendar days after detection of each leak except as provided in paragraph 6.

5. For any pressure relief device equipped with an upstream rupture disk, a new rupture disk must be installed within 5 calendar days after each pressure release except as provided in paragraph 6.
6. Delay of Repair
    a. Delay of repair of leaking equipment will be allowed if the repair is technically infeasible without a process unit shutdown or if repair personnel would be exposed to an immediate danger if attempting a repair without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.
    b. Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and does not remain in VOC service.
    c. Delay of repair for valves, connectors, and agitators is also allowed if the owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair.
    d. Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
    e. Delay of repair of pumps for up to 6 months after leak detection will be allowed if the pump is replaced with (1) a dual mechanical seal system, (2) a pump with no externally actuated shaft penetrating the pump housing, or (3) a new system the permittee has determined will provide better performance.
7. Recordkeeping Requirements
    a. Records must be maintained that identify piping systems or process areas subject to this plan.
    b. Records of all inspections must be kept documenting the inspection was conducted and the date of the inspection. If no leaks are detected during the inspection, the record must indicate this result.
    c. When a leak is detected during the inspection, the following information shall be recorded:
        i. Component identifier or description of location.
        ii. Inspector name, initials, or identification number.
        iii. Date the leak was detected.
        iv. Dates of each attempt to repair the leak.
        v. Repair methods applied in each attempt to repair the leak.
        vi. Date of successful repair of the leak. "Successful repair" means the leak is no longer detected using the inspection procedure outlined in paragraph 3.
        vii. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

viii. Signature of the owner or operator (or designate) whose decision it was that repair could not occur without a process shutdown.
ix. Expected date of successful repair of the leak if it is not repaired within 15 days.
x. Dates of process unit shutdowns that occur while the equipment is unrepaired.

d. Records of each release from a pressure relief device in gas/vapor service.

8. Reporting Requirements
   a. The following information will be included in the Title V Semiannual Report for the source:
      i. Process unit identification.
      ii. Dates of inspections.
      iii. Number of leaks found during inspections.
      iv. Number of leaks that did not meet the repair requirements (first attempt at repair within 5 calendar days and successful repair within 15 calendar days of finding the leak).
      v. Information regarding any delays of repair.

ATTACHMENT 13

EPA Region 4 Response to New Source Performance Standards (NSPS) Subpart VVa "Alternative Monitoring Request

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUN 8 2 2010

Mr. Barry R. Stephens, P.E.
Director
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
9th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1531

Dear Mr. Stephens:

The purpose of this letter is to provide you with a determination regarding the enclosed alternative monitoring procedure that BEA Systems Ordnance Systems, Inc. (OSI) submitted to the Environmental Protection Agency (EPA) Region 4 on June 2, 2010. OSI is the operating contractor for the Holston Army Ammunition Plant (HSAAP). OSI's proposal relates to new equipment to be installed at HSAAP's Area B (located in Hawkins County, Tennessee) that will be subject to New Source Performance Standards (NSPS), Subpart VVa - "Standards of Performance for Equipment Leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for Which Construction, Reconstruction, or Modification Commenced after November 7, 2006." OSI proposes to use sensory means (i.e., visual, audible, or olfactory) as an alternative to EPA Method 21 for identifying leaks from equipment that is in acetic acid and/or acetic anhydride service. Based upon our review, we have determined the OSI alternative monitoring procedure is acceptable. Monitoring data from similar facilities indicate that leaks from equipment in acetic acid and/or acetic anhydride service can be more easily identified through sensory methods than by using EPA Method 21.

The types of equipment covered by the leak detection and repair standards in Subpart VVa are pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, and connectors. Under this regulation, owners/operators are required to periodically monitor equipment in VOC service. When leaks are detected, a first attempt at repair must be made within five days, and repairs must be completed within 15 days unless the provisions in Section 60.482-9a allow a delay in repairs. The two primary methods of detecting leaks under Subpart VVa are either using an instrumental analyzer that satisfies performance requirements in EPA Method 21 or using sensory methods that identify leaks through visual, audible, or olfactory means. In its alternative monitoring procedure, OSI proposes to use sensory methods to identify leaks for regulated equipment in acetic acid and/or acetic anhydride service where Subpart VVa requires the use of EPA Method 21. As indicated in the proposal, equipment that contains or contacts a process fluid where acetic acid and/or acetic anhydride comprises at least 50 percent by weight of the VOCs contained in the mixture would be classified as being in acetic acid and/or acetic anhydride service.

OSI's alternative monitoring procedure is based on a similar proposal from the Eastman Chemical Company (ECC) facility in Kingsport, Tennessee which was approved by Region 4 on March 30, 2005. The ECC alternative monitoring procedure was based on the use of sensory methods as an alternative to EPA Method 21 for equipment in acetic acid and/or acetic anhydride service, since monitoring results demonstrated that equipment leaks can be detected much more readily using sensory methods. The March 30, 2005, approval letter indicates that 124 leaks from equipment in acetic acid and/or acetic anhydride service in ECC's acetic anhydride process unit were detected by using sensory methods between October 1999 and August 2004, and no leaks were detected by using EPA Method 21. Region 4 has also approved three similar alternative monitoring procedures for equipment in acetic acid service.

As discussed in the March 30, 2005, approval of ECC's alternative monitoring procedure for equipment in acetic acid and/or acetic anhydride service, leaks are detected more easily with sensory techniques than with EPA Method 21 due to the physical properties of acetic acid and acetic anhydride. These physical properties include a high boiling point, high corrosivity, and low odor threshold. The boiling point of acetic acid is 118 °C, and the boiling point of acetic anhydride is 139 °C. Due to the high boiling points, leaks that do occur are usually present in the form of liquid drips that can be detected visually. Because acetic acid and acetic anhydride are corrosive, liquid drips tend to cause staining or rusting of metal components which also allows the leaks to be detected visually. The low odor threshold of acetic acid and acetic anhydride also makes it relatively easy for operators to identify and locate leaks using olfactory methods. Based upon these factors, we have determined that the alternative monitoring procedure submitted by OSI is acceptable.

If you have any questions concerning the determination provided in this letter, please contact Keith Goff of the EPA Region 4 staff at (404) 562-9137.

Sincerely,

Carol L. Kemker
Acting Director
Air, Pesticides and Toxics
Management Division

Enclosure

cc: T.D. Hayes
BAE Systems Ordnance Systems, Inc.

Amy Crawford
BAE Systems Ordnance Systems, Inc.

ATTACHMENT 14

New Source Performance Standards (NSPS) Subparts NNN and RRR Alternative Monitoring Request

Acetic Acid Concentration and Acetic Anhydride Production (Source ~~37-1029-16~~, 37-0028-112)

BAE SYSTEMS

ORDNANCE SYSTEMS, INC.
4509 West Stone Drive
Kingsport, Tennessee 37660-9982
Telephone (423) 578-8010
Fax (423) 578-8054

In Reply Reference 2682RO

February 1, 2012

Ms. Beverly Banister
Air, Pesticides and Toxics Management Division, Region 4
Environmental Protection Agency
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960

Reference: New Source Performance Standards
Request for Performance Test Waiver and Alternate Monitoring
Title V Permit 558406, Emission Source Reference Number 37-1029-16
Holston Army Ammunition Plant

Dear Ms. Banister:

BAE Systems Ordnance Systems, Inc. (OSI), the operating contractor for Holston Army Ammunition Plant (HSAAP), will be constructing a new acetic anhydride manufacturing facility which is subject to New Source Performance Standards (NSPS) Subpart NNN (Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations) and Subpart RRR (Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes). This request is submitted for consideration under 40 CFR 60.8(b)(4) for waiving performance test requirements and under 40 CFR 60.13(i) for approving alternate monitoring procedures.

Acetic acid and a catalyst will be fed to two furnaces, each with a design heat input capacity of 2.38 million Btu/hr, which meet the definition of process heater (40 CFR 60.661 and 60.701). There will be a total of four furnaces; however, only two will operate at one time. After the furnaces, the chemicals will be further processed in a reactor to form acetic anhydride. The crude acetic anhydride will be refined in a distillation column. The reactor and distillation systems vent to a common header. Both Subpart NNN and RRR allow a source to reduce total organic compounds (TOC) in process vents by 98 weight percent by using a boiler or process heater (40 CFR 60.662(a) and 60.702(a), respectively). To use a boiler or process heater, both regulations require the vent stream to be introduced into the flame zone. The process vent gas streams from the reactor and distillation systems are mixed with the natural gas prior to the natural gas being fed to the burners in the furnaces (i.e., the flame zone), where the combined gases are combusted to provide heat to the acetic acid and catalyst. A flare complying with the requirements of 40 CFR 60.18 will be used as an alternate control device when the furnaces are unable to burn the process vent gases such as during startups or shutdowns.

Paragraph 60.664(c) of Subpart NNN waives the requirement for an initial performance test if a boiler or process heater has a design heat input capacity of 44 MW (150 million Btu/hr) or greater. However, the corresponding paragraph in Subpart RRR (60.704(b)(5)(ii)) also allows the initial performance test to be waived for a boiler or process heater of any size if the vent stream is introduced into the unit with the primary fuel. As documented in the preamble to Subpart RRR (Federal Register Volume 5, Number 167, Pages 45957-45958, August 31, 1993), the EPA agreed the efficiency achieved in boilers and process heaters where the process vent streams are introduced as primary fuel would meet and exceed the 98 percent emission reduction required by the standard. Since the process vent streams from the acetic anhydride manufacturing facility will be fed to the furnaces with the natural gas (the primary fuel), OSI requests permission to comply with Subpart RRR for both the Subpart RRR and Subpart NNN sources venting to the furnaces.

Paragraph 60.663(e)(2) of Subpart NNN requires a temperature monitoring device in the firebox equipped with a continuous recorder for boilers or process heaters of less than 44 MW (150 million Btu/hr) heat input design capacity. However, the corresponding paragraph in Subpart RRR (60.703(c)(2)) exempts any vent stream introduced with the primary fuel into a boiler or process heater, of any size, from the temperature monitoring requirement. As with the performance testing requirement, the EPA decided temperature monitoring would not be required when the process vent stream is fed to a boiler or process heater as primary fuel (Federal Register Volume 5, Number 167, Pages 45957-45958, August 31, 1993). OSI requests permission to follow Subpart RRR for both the Subpart RRR and Subpart NNN sources venting to the furnaces, so no temperature monitoring would be required.

Paragraph 60.663(e)(1) of Subpart NNN requires a flow indicator that provides a record of vent stream flow to the control device at least once every hour from each distillation unit at a point closest to the inlet of each control device and before being joined with any other vent stream. Paragraph 60.703(c)(1) of Subpart RRR requires a flow indicator located at the entrance to any bypass line that could divert the vent stream from being routed to the control device, resulting in emissions to the atmosphere. The bypass line flow indicator is required to provide a record of vent stream flow at least once every 15 minutes for each affected facility. Subpart NNN defines each distillation unit as an affected facility while Subpart RRR allows more flexibility in the designation of an affected facility. It can be a single reactor system up to two or more reactor processes venting to a common recovery system (60.700(b)). As documented in the preamble to Subpart RRR (Federal Register Volume 5, Number 167, Pages 45955-45956, August 31, 1993), the EPA discussed its decision to move the flow monitoring to the bypass line entrance since the intent of this requirement is to determine when uncontrolled emissions are released to the atmosphere. Subpart RRR also allows the use of a valve in the bypass line equipped with a car-seal or a lock-and-key type configuration. Inspections and recordkeeping for this option are required. OSI requests permission to follow Subpart RRR for both the Subpart RRR and NNN sources and also requests an alternate monitoring plan. As shown in the attached sketch, there are three paths the process vent gases could take to reach the atmosphere. During normal operations, the process vent gases will be directed to the furnaces or the flare for control prior to release to the atmosphere. The path through the scrubber will only be used during startup when evacuating air from the system and before any process feeds are introduced to the furnaces or distillation column. Operators will have to answer queries from the control system to verify the system had been cleaned with water before the process vent gas valve to the scrubber can open. Also, there will be interlocks programmed into the control system that will not allow the process

vent gas valve to open to the scrubber if the process feed valves to the furnaces or distillation column are open. There will be position indicators on all the valves on the attached sketch that will show if each valve is open or closed. The valve positions will be continuously monitored (at least once every 15 minutes) and recorded by the control system. OSI considers the continuous valve position monitoring provided by the control system to be more reliable than the manual recordkeeping associated with a car-seal or lock-and-key type configuration. OSI believes this alternative monitoring meets the requirement of ensuring the process vent gases do not bypass the control devices before reaching the atmosphere, satisfying the intent of 60.663(e)(1) and 60.703(e)(1).

The attached process sketch will be submitted with the initial report and will be maintained on file as required per 60.705(s).

If there are any questions concerning this application, please contact Amy Crawford at (423) 578-6417 or amy.crawford@baesystems.com.

Respectfully,

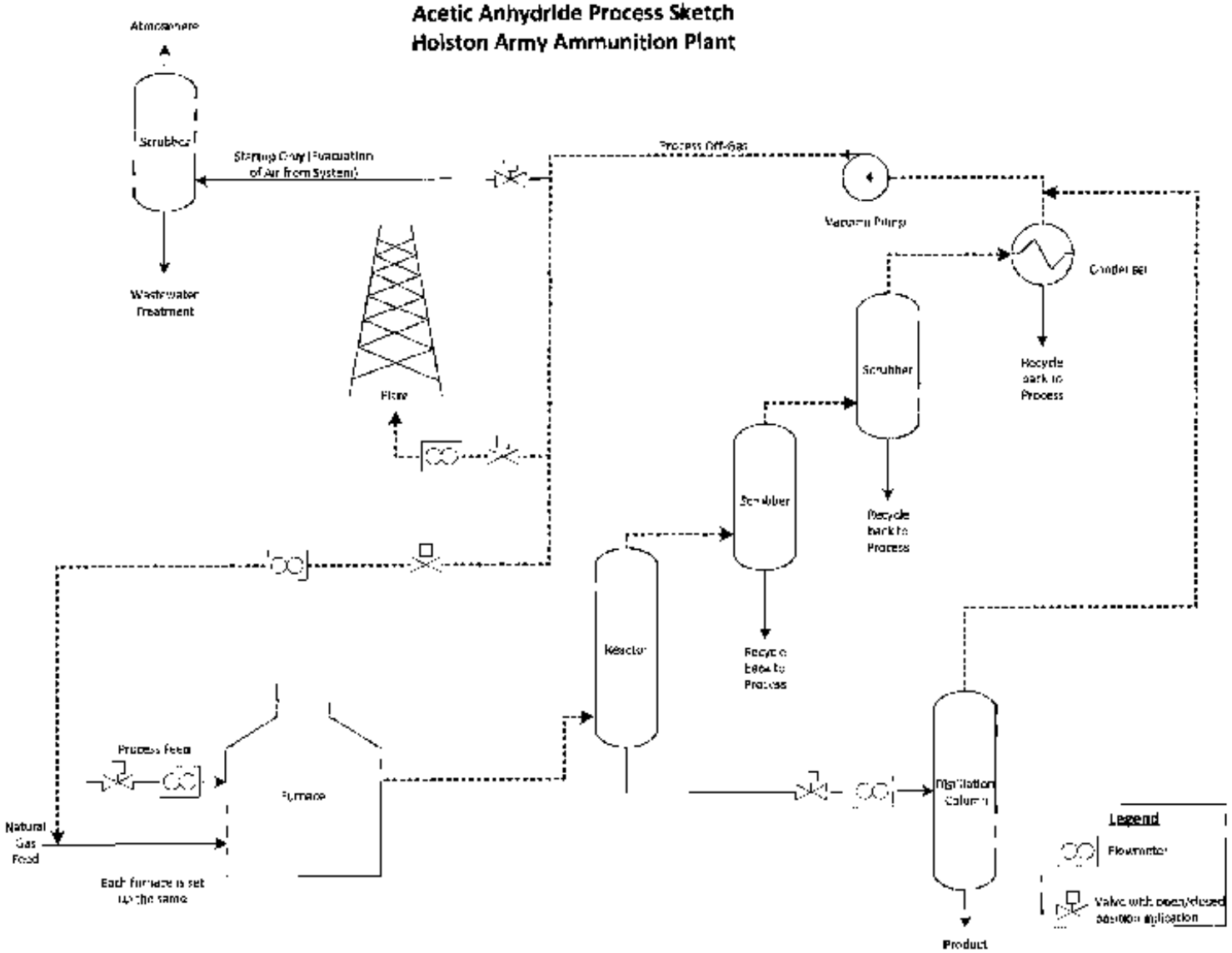
BAE SYSTEMS Ordnance Systems Inc.

T. M. Hayes
Director, Manufacturing and Facilities Support

Reviewed by HSAAP Environmental Staff

cc: Environmental Affairs/Crawford
HSAAP/Vestal
Environmental Affairs Files .305/2012

Acetic Anhydride Process Sketch
Holston Army Ammunition Plant



ATTACHMENT 15

EPA Region 4 Response to New Source Performance Standards (NSPS) Subparts NNN and RRR Alternative Monitoring Request

Acetic Acid Concentration and Acetic Anhydride Production (Source ~~37-1029-16~~, 37-0028-112)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 07 2012

Mr. Barry R. Stephens, P.E.
Director
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
9th Floor, L & C Annex
401 Church Street
Nashville, Tennessee 37243-1531

Dear Mr. Stephens:

This letter is in response to a request for an initial performance test waiver and alternative monitoring procedures from BAE Systems Ordnance Systems, Inc. (OSI), the operating contractor for Holston Army Ammunition Plant in Kingsport, Tennessee. The request relates to a new acetic anhydride manufacturing facility which is subject to New Source Performance Standards (NSPS), Subpart NNN – "Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations" and NSPS Subpart RRR – "Standards of Performance for VOC Emissions from SOCMI Reactor Processes." OSI requests permission to use the monitoring procedures provided in NSPS Subpart RRR to demonstrate compliance for vent streams that are subject to Subpart NNN. The vent streams from the reactor and distillation column at the facility are routed to furnaces with the primary fuel (natural gas) and are combusted. The furnaces used for controlling VOC emissions have a heat input capacity of 2.38 million British thermal units per hour (Btu/hr). Based upon our review, the performance test waiver and alternative monitoring procedures requested by OSI are acceptable. Details regarding the basis of our determination are provided in the remainder of this letter.

Subpart NNN at 40 CFR Section 60.662(a) allows an owner/operator of an affected facility to comply with the standard by reducing the total emissions of total organic compounds (TOC) in the vent stream by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 parts per million, on a dry basis corrected to three percent oxygen. If a boiler or process heater is used to comply with these limits, the vent gas stream must be introduced into the flame zone of the boiler or process heater. The terms "boiler" and "process heater" are defined under 40 CFR Section 60.661 of Subpart NNN. Subpart RRR at 40 CFR Section 60.702(a) includes the same emission standards. However, Subpart RRR allows more flexibility regarding performance testing and monitoring

In the acetic anhydride manufacturing facility, acetic acid and a catalyst will be heated in two furnaces which meet the definition of process heaters under Subparts NNN and RRR. The chemicals will then be processed in a reactor to form acetic anhydride. The crude acetic anhydride will then be refined in a distillation column. The process vent gas streams from the reactor and distillation operations are mixed with natural gas prior to being fed to the burners in the furnaces (i.e., the flame zone), where the combined gases are combusted to provide heat to the acetic acid and catalyst. A flare complying with the requirements of 40 CFR Section 60.18 will be used as an alternate control device when the furnaces are unable to burn the process vent gases, such as during startups or shutdowns. The request for an initial performance test waiver and the particular sections of Subpart NNN for which OSI is requesting alternative monitoring are described below, along with the corresponding Subpart RRR requirements which OSI proposes to use.

Subpart NNN at 40 CFR Section 60.664(e) waives the initial performance test requirement when a boiler or process heater with a design heat input capacity of 150 million Btu/hr or greater is used to comply with 40 CFR Section 60.662(a). The corresponding section under Subpart RRR, 40 CFR Section 60.704(b)(5), waives the requirement for an initial performance test under the same conditions provided under Subpart NNN and also waives the requirement for an initial performance test when a vent stream is introduced into a boiler or process heater with the primary fuel. OSI has requested that the waiver of the initial performance test provided in Subpart RRR be allowed for Subpart NNN affected facilities whose vent streams are introduced with the primary fuel into the process heaters.

Subpart NNN at 40 CFR Section 60.663(e)(2) requires a temperature monitoring device in the firebox equipped with a continuous recorder if the vent stream is combusted in a boiler or process heater with a design heat input capacity of less than 150 million Btu/hr. The corresponding section under Subpart RRR in 40 CFR Section 60.703(e)(2) does not require a temperature monitoring device if the vent stream is introduced with the primary fuel into a boiler or process heater. OSI has requested that no temperature monitoring device be required for their Subpart NNN affected facilities whose vent streams are introduced with the primary fuel, since none is required under Subpart RRR.

For affected facilities that comply with 40 CFR Section 60.662(a) by using a boiler or process heater, Subpart NNN at 40 CFR Section 60.663(e)(1) requires the installation of a flow indicator that provides a record of vent stream flow to the boiler or process heater at least once every hour. The corresponding section under Subpart RRR, 40 CFR Section 60.703(e)(1), requires a flow indicator only on any bypass line that may divert the vent stream from the boiler or process heater. The bypass line flow indicator is required to provide a record of vent stream flow at least once every 15 minutes for each affected facility. This section of Subpart RRR also indicates that no flow indicator is required if the bypass line is secured in the closed position with a car-seal or lock-and-key type configuration. OSI has proposed to use the requirement of 40 CFR Section 60.703(e)(1) in Subpart RRR as alternative monitoring for 40 CFR Section 60.663(e)(1) of Subpart NNN.

During normal operations, process vent gases will be directed to the furnaces or the flare for control prior to release to the atmosphere. However, when evacuating air from the system during start up and before any feed is introduced to the furnaces or distillation column, vent gases will be directed to a scrubber. To ensure the process vent gases are not directed to the scrubber during normal operations, OSI proposes to use continuous valve position monitoring using a control system, rather than using a car-seal or lock-and-key type configuration with manual recordkeeping as allowed by Subpart RRR. The control system will not allow the process vent gas valve to the scrubber to open if the process feed

valves to the furnaces or distillation column are open. Position indicators on valves will show if each valve is open or closed and valve positions will be continuously monitored (at least once every 15 minutes) and recorded by the control system. The OSI proposal is to ensure process vent gases do not bypass the control devices before reaching the atmosphere, satisfying the intent of 40 CFR Sections 60.663(e)(1) and 60.703(e)(1).

The rationale for determining that performance testing and temperature monitoring for boilers and process heaters combusting vent streams with primary fuel were not warranted under NSPS Subpart RRR is presented in the Federal Register preamble for the standard (58 FR 45957; August 31, 1993). Based on the performance of boilers and process heaters, the preamble indicates that it is believed that they would already be achieving the performance levels required by the standard, and no performance testing and temperature monitoring are necessary to ensure compliance. The preamble to Subpart RRR also discusses the flow monitoring requirements for vent streams used as primary fuel in boilers and process heaters and indicates that the use of flow indicators was being altered (from that required under Subpart NNN) to indicate those times when the vent stream is being diverted to the atmosphere. The flow monitoring requirements under Subpart RRR were considered to be more appropriate than those under Subpart NNN for meeting the intent of flow monitoring requirements.

Pursuant to 40 CFR Section 60.8(b)(4), we are approving OSI's request for a waiver of the requirement for an initial performance test for vent streams introduced into the process heaters with the primary fuel. Pursuant to 40 CFR Section 60.13(i), we are approving the provisions of NSPS Subpart RRR at 40 CFR Section 60.703(e)(1) and (e)(2) as alternative monitoring for the provisions of NSPS Subpart NNN at 40 CFR Section 60.663(e)(1) and (e)(2). OSI must comply with the Subpart RRR record keeping and reporting requirements at 40 CFR Section 60.705(d)(1), (d)(2), (l)(2), and (l)(7). We are also approving the OSI proposal to use continuous valve position monitoring to ensure the process vent gases do not bypass the control devices.

If you have any questions concerning the determination provided in this letter, please contact Keith Goff of the EPA Region 4 staff at (404) 562-9137.

Sincerely,

Carol L. Kemker for

Beverly H. Banister
Director
Air, Pesticides and Toxics
Management Division

cc: T.D. Hayes
BAE Systems Ordnance Systems

Amy Crawford
BAE Systems Ordnance Systems, Inc.

ATTACHMENT 16

Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP Requirements (40 CFR 63 Subpart DDDDD) Specific Applicability Determinations Source ~~37-1029-16~~, 37-0028-112 (Ketene Furnaces)

Identification	Category	Rule Citation from 40 CFR 63
Emission Limitations and Work Practice Standards		
Ketene Furnaces: R-410, R-420, R-430, R-440	Conduct tune-up every 5 years for process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour.	7500(e)
Testing, Fuel Analysis, and Initial Compliance Requirements		
Ketene Furnaces: R-410, R-420, R-430, R-440	Demonstrate initial compliance with applicable work practice standards within 5 years of startup of the process heater. Complete tune-ups every 5 years.	7510(g), 7495(a), 7540(a)(12)
Ketene Furnaces: R-410, R-420, R-430, R-440	Conduct 5-year performance tune-up according to §63.7540(a)(12). First tune-up must be conducted no later than 61 months after the initial startup. Subsequent tune-ups must be conducted no later than 61 months after the previous tune-up.	7515(d)
Ketene Furnaces: R-410, R-420, R-430, R-440	Fuel specification analyses are not required for natural gas.*	7521(f)(1)
Ketene Furnaces: R-410, R-420, R-430, R-440	Fuel specification analyses are not required for gaseous fuels that are subject to part 60.*	7521(f)(2)
Continuous Compliance Requirements		
Ketene Furnaces: R-410, R-420, R-430, R-440	Conduct tune-up of process heater every 5 years as specified in paragraphs §7540(a)(10)(i) through (vi) for units with a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1.	7540(a)(10)(i) through (vi), 7540(a)(12)
Ketene Furnaces: R-410, R-420, R-430, R-440	If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup	7540(a)(13)
Ketene Furnaces: R-410, R-420, R-430, R-440	Report each instance the work practice standards were not met.	7540(b)
Notification, Reports, and Records		
Ketene Furnaces: R-410, R-420, R-430, R-440	Submit initial startup notification within 15 days of startup.	7545(a), 63.9(b)
Ketene Furnaces: R-410, R-420, R-430, R-440	Submit 5-year compliance report with required information using CEDRI or as otherwise specified.	7550(b), 7550(c), 7550(c)(1),7550(c)(5)(i) through (iv) and (xiv), 7550(h)(3)
Ketene Furnaces: R-410, R-420, R-430, R-440	Maintain copies of each notification and report submitted to comply with this subpart and any supporting information.	7555(a)
Ketene Furnaces: R-410, R-420, R-430, R-440	Maintain startup and shutdown records.	7555(i)
Ketene Furnaces: R-410, R-420, R-430, R-440	Maintain records of the type and amount of fuel using during each startup and shutdown	7555(j)

* The ketene furnaces are designed to burn natural gas or a mixture of natural gas and the process off-gas which is subject to 40 CFR 60 Subparts NNN and RRR.

These requirements are applicable after the compliance date stipulated by the rule but can be used to demonstrate compliance with case-by-case Boiler MACT requirements (112 (j)) if required and implemented by the State.

ATTACHMENT 17

Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP Requirements (40 CFR 63 Subpart DDDDD) Specific Applicability Determinations

Source ~~37-1029-17~~ , 37-0028-113 (Miura Boilers)

Identification	Category	Rule Citation from 40 CFR 63
Emission Limitations and Work Practice Standards		
Miura Boilers	Conduct annual tune-up for boilers in the units designed to burn gas 1 fuels subcategory with a heat input capacity of 10 million Btu per hour or greater.	7500(a)(1)
Testing, Fuel Analysis, and Initial Compliance Requirements		
Miura Boilers	Demonstrate initial compliance with applicable work practice standards within 1 year of startup of boilers. Complete tune-ups every year.	7510(g), 7495(a), 7540(a)(12)
Miura Boilers	Conduct annual performance tune-up according to §63.7540(a)(10). First tune-up must be conducted no later than 13 months after the initial startup. Subsequent tune-ups must be conducted no later than 13 months after the previous tune-up.	7515(d)
Miura Boilers	Fuel specification analyses are not required for natural gas.	7521(f)(1)
Continuous Compliance Requirements		
Miura Boilers	Conduct annual tune-up of boiler as specified in paragraphs §63.7540(a)(10)(i) through (vi) for units with a heat input capacity of 10 million Btu per hour or greater.	7540(a)(10)
Miura Boilers	If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup	7540(a)(13)
Miura Boilers	Report each instance the work practice standards were not met.	7540(b)
Notification, Reports, and Records		
Miura Boilers	Submit initial startup notification within 15 days of startup.	7545(a), 63.9(b)
Miura Boilers	Submit annual compliance report with required information using CEDRI or as otherwise specified.	7550(b), 7550(c), 7550(c)(1), 7550(c)(5)(i) through (iv) and (xiv), 7550(h)(3)
Miura Boilers	Maintain copies of each notification and report submitted to comply with this subpart and any supporting information.	7555(a)
Miura Boilers	Maintain startup and shutdown records.	7555(i)
	Maintain records of the type and amount of fuel using during each startup and shutdown	7555(j)

ATTACHMENT 18

Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP Requirements (40 CFR 63 Subpart DDDDD) Specific Applicability Determinations

Source ~~37-1029-17~~ , 37-0028-113 (CHP)

Identification	Category	Rule Citation from 40 CFR 63
Emission Limitations and Work Practice Standards		
CHP	Conduct annual tune-up for boilers in the units designed to burn gas 1 fuels subcategory with a heat input capacity of 10 million Btu per hour or greater.	7500(a)(1)
Testing, Fuel Analysis, and Initial Compliance Requirements		
CHP	Demonstrate initial compliance with applicable work practice standards within 1 year of startup of boilers. Complete tune-ups every year.	7510(g), 7495(a), 7540(a)(12)
CHP	Conduct annual performance tune-up according to §63.7540(a)(10). First tune-up must be conducted no later than 13 months after the initial startup. Subsequent tune-ups must be conducted no later than 13 months after the previous tune-up.	7515(d)
CHP	Fuel specification analyses are not required for natural gas.	7521(f)(1)
Continuous Compliance Requirements		
CHP	Conduct annual tune-up of boiler as specified in paragraphs §63.7540(a)(10)(i) through (vi) for units with a heat input capacity of 10 million Btu per hour or greater.	7540(a)(10)
CHP	If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup	7540(a)(13)
CHP	Report each instance the work practice standards were not met.	7540(b)
Notification, Reports, and Records		
CHP	Submit initial startup notification within 15 days of startup.	7545(a), 63.9(b)
CHP	Submit annual compliance report with required information using CEDRI or as otherwise specified.	7550(b), 7550(c), 7550(c)(1), 7550(c)(5)(i) through (iv) and (xiv), 7550(h)(3)
CHP	Maintain copies of each notification and report submitted to comply with this subpart and any supporting information.	7555(a)
CHP	Maintain startup and shutdown records.	7555(i)
	Maintain records of the type and amount of fuel using during each startup and shutdown	7555(j)

ATTACHMENT 19

New Source Performance Standards (NSPS) Subpart Dc Specific Applicability Determinations

Source ~~37-1029-17~~ , 37-0028-113 (Miura Boilers)

40 CFR Part 60 Subpart Dc

Identification	Category	Rule Citation

		from 40 CFR Part 60
Applicability and delegation of authority.		
Miura Boilers	Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).	60.40c(a)
Testing, Fuel Analysis, and Initial Compliance Requirements		
Miura Boilers	No requirements based on natural gas fuel only	60.42c, 60.43c, 60.44c, 60.45c, 60.46c, and 60.47c
Reporting and recordkeeping requirements.		
Miura Boilers	The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include: (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.	60.48c(a)
Miura Boilers	As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.	60.48c(g)(2)
Miura Boilers	The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.	60.48c(j)

ATTACHMENT 20

New Source Performance Standards (NSPS) Subpart KKKK Specific Applicability Determinations

Source ~~37-1029-17~~ , 37-0028-113 (CHP)

40 CFR Part 60 Subpart KKKK for Combined Heat and Power (CHP) combustion turbine and heat recovery steam generator (HRSG)

Requirement	Rule Citation from 40 CFR Part 60
Does this subpart apply to my stationary combustion turbine?	
If you are the owner or operator of a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005, your turbine is subject to this subpart. Only heat input to the combustion turbine should be included when determining whether or not this subpart is applicable to your turbine. Any additional heat input to associated heat recovery steam generators (HRSG) or duct burners should not be included when determining your peak heat input. However, this subpart does apply to emissions from any associated HRSG and duct burners.	60.4305(a)
Stationary combustion turbines regulated under this subpart are exempt from the requirements of subpart GG of this part. Heat recovery steam generators and duct burners regulated under this subpart are exempted from the requirements of subparts Da, Db, and Dc of this part.	60.4305(b)
What pollutants are regulated by this subpart?	
The pollutants regulated by this subpart are nitrogen oxide (NOX) and sulfur dioxide (SO2).	60.4315
What emission limits must I meet for nitrogen oxides (NOX)?	
You must meet the emission limits for NOX specified in Table 1 to this subpart.	60.4320(a)
What emission limits must I meet for sulfur dioxide (SO2)?	
If your turbine is located in a continental area, you must comply with either paragraph (a)(1), (a)(2), or (a)(3) of this section. . . .	60.4333(a)
You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement; or	60.4333(a)(2)
What are my general requirements for complying with this subpart?	
You must operate and maintain your stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.	60.4333(a)
How do I demonstrate continuous compliance for NOX if I do not use water or steam injection?	
If you are not using water or steam injection to control NOX emissions, you must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NOX emission result from the performance test is less than or equal to 75 percent of the NOX emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOX emission limit for the turbine, you must resume annual performance tests.	60.4340(a)
If the 60.4340(a) option is selected the following section 60.4400 may apply.	
As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems: (1) Continuous emission monitoring as described in §§60.4335(b) and 60.4345, or (2) Continuous parameter monitoring as follows: . . .	60.4340(b)
If 60.4340(b) options are selected the following sections may apply: 60.4345, 60.4350, 60.4355, 60.4380, 60.4405, and 60.4410.	
How can I be exempted from monitoring the total sulfur content of the fuel?	
You may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for units located in continental. . . You must use one of the following sources of information to make the required demonstration:	60.4365
The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum. . ., total sulfur content for natural gas use in continental areas is 20 grains of sulfur. . ., has potential sulfur emissions of less than less than 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for continental areas . . .; or	60.4365(a)
Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for continental areas. . . At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.	60.4365(b)
How often must I determine the sulfur content of the fuel?	
The frequency of determining the sulfur content of the fuel must be as follows:	60.4370
Gaseous fuel. If you elect not to demonstrate sulfur content using options in §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.	60.4370(b)
What reports must I submit?	
For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.	60.4375(a)
For each affected unit that performs annual performance tests in accordance with §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.	60.4375(b)

When must I submit my reports?	
All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.	60.4395

ATTACHMENT 21

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Combustion Turbines - Requirements (40 CFR 63 Subpart YYYY) Specific Applicability Determinations

Source ~~37-1029-17~~ , 37-0028-113 (CHP)

Identification	Category	Rule Citation from 40 CFR 63
Emission Limitations and Work Practice Standards		
CHP	Stay of standards for gas-fired subcategories. If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or diffusion flame gas-fired stationary combustion turbine as defined by this subpart, you must comply with the Initial Notification requirements set forth in §63.6145 but need not comply with any other requirement of this subpart until EPA takes final action to require compliance and publishes a document in the Federal Register.	6095(d)
Notification, Reports, and Records		
CHP	As specified in §63.9(b), if you start up your new or reconstructed stationary combustion turbine on or after March 5, 2004, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.	6145(c)
CHP	If you are required to submit an Initial Notification but are otherwise not affected by the emission limitation requirements of this subpart, in accordance with §63.6090(b), your notification must include the information in §63.9(b)(2)(i) through (v) and a statement that your new or reconstructed stationary combustion turbine has no additional emission limitation requirements and must explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary combustion turbine).	6145(d)
What definitions apply to this subpart?		
CHP	Lean premix gas-fired stationary combustion turbine means: (1)(i) Each stationary combustion turbine which is equipped only to fire gas using lean premix technology, (ii) Each stationary combustion turbine which is equipped both to fire gas using lean premix technology and to fire oil, during any period when it is firing gas, and (iii) Each stationary combustion turbine which is equipped both to fire gas using lean premix technology and to fire oil, and is located at a major source where all new, reconstructed, and existing stationary combustion turbines fire oil no more than an aggregate total of 1000 hours during the calendar year.	6175

ATTACHMENT 22

New Source Performance Standards (NSPS)– 40 CFR Part 60

Specific Applicability Determinations for Weak Acetic Acid Recovery Process and Tanks 16A and 16B (Source ~~37-1029-24~~, 37-0028-115, and -~~25~~, 116)

Identification	Category	Rule Citation from 40 CFR 60.
Subpart A – General Provisions		
Entire Source	Notification, monitoring, recordkeeping, and reporting.	7, 13, 19
Vents A and B	Performance tests.	8
	Opacity standards.	11
	Flare requirements.	18(b) through 18(f)
Subpart Kb – Storage Vessels		
	Storage Vessels storing a VOL having a maximum true vapor pressure less than 76.7 kPa and must meet standards.	112b(a)
Tanks T-16A and T-16B (Vent C)	Storage Vessels storing a VOL having a maximum true vapor pressure equal to or greater than 76.7 kPa and must meet standards.	112b(b)
	Storage Vessels that are not required to meet standards.	110b
Tanks T-16A and T-16B (Vent C)	Monitoring, recordkeeping, and reporting.	115b, 116b
Subpart VVa – Equipment Leaks		
Equipment "in VOC Service"	Work practice standards for pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, etc.	482-1a through 482-11a, 483-1a through 483-2a
Equipment "in acetic acid and/or acetic anhydride service"	Alternative monitoring for equipment in acetic acid and/or acetic anhydride service (letter from Carol Kemker, EPA Region 4, to Mr. Barry Stephens, TDEC, dated June 23, 2010).	N/A
VVa subject points as applicable	Monitoring, recordkeeping, and reporting.	486a, 487a
Subpart NNN – Distillation		
	TRE less than or equal to 1.0 (Reduce TOC by 98% or to 20 ppmv).	662(a)
	TRE less than or equal to 1.0 (Combust in a flare).	662(b)
	TRE greater than 1.0 but less than or equal to 8.0.	662(c)
Vent A	TRE greater than 8.0.	660(c)(4)
	Batch Operation Exemption.	660(c)(3)
Vent B	Low Flow Exemption.	660(c)(6)
	Design Capacity Exemption.	660(c)(5)
NNN subject points as applicable	Monitoring, recordkeeping, and reporting.	663, 665
Subpart RRR – Reactors		
	TRE less than or equal to 1.0 (Reduce TOC by 98% or to 20 ppmv).	702(a)
	TRE less than or equal to 1.0 (Combust in a flare).	702(b)
	TRE greater than 1.0 but less than or equal to 8.0.	702(c)
	TRE greater than 8.0.	700(c)(2)
	Batch Operation Exemption.	700(c)(1)
	Low Flow Exemption.	700(c)(4)
	Design Capacity Exemption.	700(c)(3)
	Low Concentration Exemption.	700(c)(8)
	Routed to distillation unit subject to subpart NNN except for a pressure relief valve.	700(c)(5)
	Monitoring, recordkeeping, and reporting.	703, 705

ATTACHMENT 23

Miscellaneous Organic NESHAP (MON) Requirements

40 CFR 63 Subpart FFFF

Specific Applicability Determinations

All MCPUs contained under Source 37-0028

Permit Number: 568188 Expiration Date:

BAE SYSTEMS

Attachment 1

Miscellaneous Organic NESHAP (MON) Requirements
40 CFR 63 Subpart FFFF
Specific Applicability Determinations
All MCPUs contained under Sources 37-0028, 37-1028, and 37-1029

Identification*	Category	Rule Citation from 40 CFR 63
	Continuous Process Vents	
	Group 1 Continuous Process Vent and applicable monitoring	2455
	Continuous Process vent combined with Group 1 batch vent before control or recovery device	2455(b)(1)
	Existing Group 2 Process Vents with TRE =>5	2455
	New Group 2 Process Vents with TRE =>8	2455
	Existing Group 2 Continuous Process Vents with 1.9 < TRE <= 5.	2455(c)(1)
	New Group 2 Continuous Process Vents with 5 < TRE <= 8	2455(c)(1)
	Gaseous streams routed to a Fuel Gas System are not process vents and have no applicable requirements under 40 CFR 63 Subpart FFFF.	2550
	Process Vents Emitting Hydrogen Halide or Halogen HAPs	
	Process with collective sum of hydrogen halide and hydrogen HAPs < 1,000 lb/year	2465(b), 1257(d)(2)(i)
	Process with collective sum of hydrogen halide and hydrogen HAPs >= 1,000 lb/year	2465(c), 994
	New process vents that emit HAP metals	2465(d)
	Batch Process Vents	
	Group 1 process vents and applicable monitoring	2460
MCPUs as defined and updated in the Semiannual Compliance Reports	Group 2 process vents.	2460, 2525(e)
MCPUs as defined and updated in the Semiannual Compliance Reports	Process with non-reactive HAP usage < 10,000 lb/year	2460(b)(7)
	Halogenated Group 1 batch process vents for which a combustion device is used to control organic HAP emissions	2460
	Vessels (Storage, Surge Control Vessels, and Bottoms Receivers)	
	Group 1 vessels storing a liquid for which the maximum true vapor pressure of organic HAPs ≥ 76.6 kPa (11.1 psi)	2470, 2450(r), 982
MCPUs as defined and updated in the Semiannual Compliance Reports	Group 1 vessels storing a liquid for which the maximum true vapor pressure of organic HAPs < 76.6 kPa (11.1 psi)	2470, 2450(r), Subpart WW
MCPUs as defined and updated in the Semiannual Compliance Reports	Group 2 vessels (Storage, Surge Control, and Bottoms Receivers)	2470, 2450(r)
	Halogenated Group 1 vessels for which a combustion device is used to control organic HAP emissions.	2470
	Transfer Operations	
	Group 1 transfer racks and applicable monitoring and testing	2475
	Halogenated Group 1 transfer racks for which a combustion device is used to control organic HAP emissions	2475
	Equipment Leaks	
Equipment in MON service	Equipment in OHAP service complying with 40 CFR 63 Subpart H.	2480(a)
	Equipment in OHAP service complying with 40 CFR 63 Subpart UU.	2480(a)
	Equipment in OHAP service complying with 40 CFR 65 Subpart F.	2480(a)
	Process Wastewater	
MCPUs as defined and updated in the Semiannual Compliance Reports	Group 1 wastewater stream	2485(c), (n), 132-148
MCPUs as defined and updated in the Semiannual Compliance Reports	Group 2 wastewater stream	2485
	Standards for waste management units managing Group 1 wastewater stream or residuals removed from Group 1 streams	2485(d)
	Liquid streams in open systems	2485(l), 149
	Emissions averaging	
	Comply with the emissions averaging plan for selected emission points	2500, 150
	Recordkeeping and Reporting	
MON subject points as applicable	Recordkeeping and reporting applicable MON emission points	2520, 2525

*MCPUs and their requirements as defined in the Notification of Compliance Status and as updated in the Semiannual Compliance Reports. Notification of new MCPUs will be included in the Semiannual Compliance Report for the period in which the new MCPU first operated.

Permit Number: 568188 Expiration Date: